



# **STIC Search Report**

## **EIC 1700**

**STIC Database Tracking Number: 162738**

**TO: Peter Szekely**  
**Location: REM 10D29**  
**Art Unit : 1714**  
**September 1, 2005**

**Case Serial Number: 10/626971**

**From: Kathleen Fuller**  
**Location: EIC 1700**  
**REMSSEN 4B28**  
**Phone: 571/272-2505**  
**Kathleen.Fuller@uspto.gov**

### **Search Notes**

I searched the starting monomers for the copolymer in the claims as this is the way Chemical Abstracts indexes polymers. If you have any questions please call me..

Access DB# 162738

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf - Cntr

# SEARCH REQUEST FORM

Scientific and Technical Information Center

AUG 17 RECD

Requester's Full Name: Peter Szekely Examiner #: 69764 Date: 8/17/05  
Art UniPat. & TM Office Phone Number 302-1124 Serial Number: 10626971  
Mail Box and Bldg/Room Location: Remsen 10D29 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.  
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Hydraulic cementitious composition with improved bleeding resist  
ance  
Inventors (please provide full names): Frederick Goodwin

Earliest Priority Filing Date: 8/14/02

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

See enclosed claims.

\*\*\*\*\*

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>6</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>9/1/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>40</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>90</u>	Other _____	Other (specify) _____



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

=> FILE REG

FILE 'REGISTRY' ENTERED AT 13:05:49 ON 01 SEP 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 31 AUG 2005 HIGHEST RN 862246-83-1

DICTIONARY FILE UPDATES: 31 AUG 2005 HIGHEST RN 862246-83-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005. A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 13:06:00 ON 01 SEP 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Sep 2005 VOL 143 ISS 10

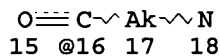
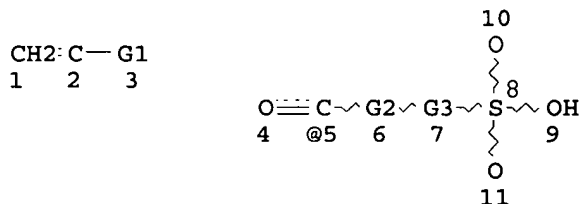
FILE LAST UPDATED: 31 Aug 2005 (20050831/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

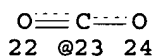
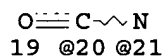
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE  
L4

STR



*This query  
cover components  
a or b*

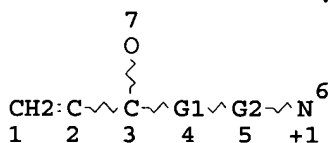


*309,392 polymers*

VAR G1=5/16/20/21/23  
VAR G2=O/NH  
VAR G3=AK/CB  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE  
L6 SCR 2043  
L8 309392 SEA FILE=REGISTRY SSS FUL L4 AND L6  
L9 STR 1

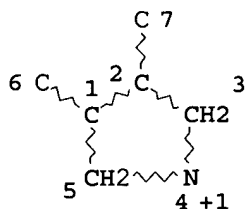


VAR G1=O/N  
VAR G2=AK/CB  
NODE ATTRIBUTES:  
CHARGE IS E+1 AT 6  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
L10 STR 2

*Subset search with 2 structures  
covering c component*



NODE ATTRIBUTES:  
 CHARGE IS E+1 AT 4  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L12 7491 SEA FILE=REGISTRY SUB=L8 SSS FUL L9 OR L10  
 L13 8558 SEA FILE=HCAPLUS ABB=ON L12  
 L14 2 SEA FILE=HCAPLUS ABB=ON L13 AND GROUT?  
 L15 50 SEA FILE=HCAPLUS ABB=ON L13 AND CEMENT?  
 L17 19 SEA FILE=HCAPLUS ABB=ON L15 AND CEMENT?/SC  
 L18 21 SEA FILE=HCAPLUS ABB=ON L13 AND MORTAR?  
 L19 7 SEA FILE=HCAPLUS ABB=ON L18 AND CEMENT?/SC  
 L20 21 SEA FILE=HCAPLUS ABB=ON L14 OR L19 OR L17  
 L21 301901 SEA FILE=REGISTRY ABB=ON L8 NOT L12  
 L22 301901 SEA FILE=REGISTRY ABB=ON L21 OR L21  
 L23 151902 SEA FILE=REGISTRY RAN=(,158321-06-3) ABB=ON L21 OR L21  
 L24 149999 SEA FILE=REGISTRY ABB=ON L22 NOT L23  
 L40 16987 SEA FILE=REGISTRY ABB=ON L23 AND 1-2/S  
 L42 17502 SEA FILE=REGISTRY ABB=ON L24 AND 1-2/S  
 L44 91 SEA FILE=HCAPLUS ABB=ON (L40 OR L42) (L) MOA/RL (L) (CEMENT? OR MORTAR? OR GROUT?)  
 L49 30 SEA FILE=HCAPLUS ABB=ON L44 AND HYDRAULIC?  
 L50 28 SEA FILE=HCAPLUS ABB=ON L49 AND CEMENT?/SC  
 L51 49 SEA FILE=HCAPLUS ABB=ON L50 OR L20

=> D L51 1-49 BIB ABS IND HITSTR

L51 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:1020093 HCAPLUS  
 DN 142:10244  
 TI Methods for cementing in subterranean zones penetrated by well bores using biodegradable dispersants  
 IN Chatterji, Jiten; Brenneis, Chad D.; Cromwell, Roger S.  
 PA Halliburton Energy Services, Inc., USA; Wain, Christopher Paul  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004101953	A1	20041125	WO 2003-GB5118	20031125
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-439491 A 20030516

AB The title methods are presented. A cement composition of the invention comprises a **hydraulic** cement, sufficient water to form a slurry and a water soluble biodegradable cement dispersant comprising a polyamide graft copolymer containing at least one side chain formed from aldehydes and sulfur-containing acids or their salts.

IC ICM E21B033-13

ICS E21B033-138; C04B024-14; C04B024-16

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST cement biodegradable dispersant slurry cementing subterranean zone well bore

IT Cement

(aluminous; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Alcohols, uses

RL: MOA (Modifier or additive use); USES (Uses)

(aralkyl, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Bone

(binders, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Dispersing agents

(biodegradable; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Alkaline earth metals

RL: MOA (Modifier or additive use); USES (Uses)

(bisulfites, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Caseins, uses

Gelatins, uses

RL: MOA (Modifier or additive use); USES (Uses)

(dispersant comprising; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Collagens, uses

RL: MOA (Modifier or additive use); USES (Uses)

(dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Caseins, uses

Gelatins, uses

RL: MOA (Modifier or additive use); USES (Uses)

(graft polymers, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Cement

Compressive strength

Wells

(methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT Rheology

(of cement slurries; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

- IT Cement  
(portland; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Cement  
(pozzolan; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Waters  
(saline; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Albumins, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(serum, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Cement  
(slag; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Proteins  
RL: MOA (Modifier or additive use); USES (Uses)  
(soybean, dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT Thickening  
(time; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 9004-62-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(Halad 23, Halad 9, fluid loss control additive; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 7631-86-9, Silica, uses 13397-24-5, Gypsum, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(cements containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 50-00-0, Formaldehyde, uses 67-64-1, Acetone, uses 7757-83-7, Sodium sulfite  
RL: MOA (Modifier or additive use); USES (Uses)  
(dispersant comprising; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 57-13-6D, Urea, derivs. 75-07-0, Acetaldehyde, uses 78-93-3, 2-Butanone, uses 98-11-3D, Benzenesulfonic acid, salts 107-22-2, Glyoxal 108-78-1D, Melamine, derivs. 123-63-7, Paraldehyde 127-17-3, Pyruvic acid, uses 461-58-5, Dicyanodiamide 6542-67-2, Triazines 10192-30-0, Ammonium bisulfite 15181-46-1, Hydrogen sulfite 25155-19-5D, Naphthalenesulfonic acid, salts 25608-40-6, Polyaspartic acid 30525-89-4, Paraformaldehyde 51379-94-3, Aluminum bisulfite 54343-62-3  
RL: MOA (Modifier or additive use); USES (Uses)  
(dispersants containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 88031-77-0, Halad 344 153550-28-8, Halad 413  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss control additive; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 10101-41-4, Calcium sulfate (Ca(SO<sub>4</sub>)) dihydrate  
RL: MOA (Modifier or additive use); USES (Uses)  
(gypsum-structured, cements containing; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)
- IT 7647-14-5, Sodium chloride, uses 10043-52-4, Calcium chloride, uses 142540-03-2, CFR 3



RL: MOA (Modifier or additive use); USES (Uses)  
(methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

IT 88031-77-0, Halad 344

RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss control additive; methods of cementing in subterranean zones penetrated by well bores using biodegradable dispersants)

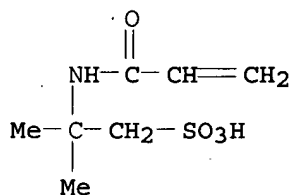
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

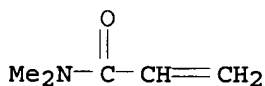
CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7

CMF C5 H9 N O



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:631310 HCAPLUS

DN 141:178301

TI Cementing compositions for petroleum and gas wells containing  
hydraulic cement binder and polymeric latex additive

IN Chapon, Pascal; Touzet, Sylvie; Le Roy Delage, Sylvaine; Phipps, Jonathan

PA Rhodia Chimie, Fr.; Services Petroliers Schlumberger

SO Fr. Demande, 23 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2850647	A1	20040806	FR 2003-1054	20030130
	WO 2004067470	A1	20040812	WO 2004-EP680	20040127
	W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,				

CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES,  
 ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN,  
 IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC,  
 LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX,  
 MZ, MZ, NA, NI

PRAI FR 2003-1054 A 20030130

AB Cement compns. for cementing targeted zones and strata in petroleum wells contain, in addition to a cement **hydraulic** binder, a polymeric resin with average size <400 nm that is prepared by radical polymerization of an aromatic

monomer, typically an aromatic vinyl ester or vinyl amide, and a monomer containing sulfonate, sulfonic acid, or sulfobetaine functional groups. Suitable monomers for preparation of the polymeric resin include vinylarom. monomers (e.g., styrene,  $\alpha$ -methylstyrene, chloromethylstyrene, vinyl toluene, vinylxylene, and vinylnaphthalene), C1-8-alkyl (meth)acrylates, N-substituted derivs. (e.g., acrylamide and methacrylamide), and vinyl esters of C2-10-carboxylic acids. The compns. can also contain addnl. additives, such as antifoaming agents, surfactants, and dispersants. A preferred cement is portland cement. The presence of latex in the cement decreases its Young's modulus, maintains the rupture resistance, and increases the ratio of the rupture modulus to the bending modulus.

IC ICM C04B028-04

ICS E21B033-14; C04B016-04; C04B111-50; C04B111-70

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38, 51

ST petroleum well cementing polymer latex additive; well treatment cementing fluid polymer latex additive; polyacrylate latex petroleum well cementing additive

IT Polymers, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(aromatic, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Vinyl compounds, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(aryl, polymers, polymers, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Cement

Oil wells

Well treatment fluids

(cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Vinyl compounds, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ester group-containing, polymers, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Sulfobetaines

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polymeric, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Amides, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polymers, N-vinyl, polymers, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Cement

(portland; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(salts, polymeric, cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT 64112-34-1

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic cement** binder and polymeric latex additive)

IT 733751-91-2, Rhodasurf CET 5

RL: NUU (Other use, unclassified); USES (Uses)

(surfactant; cementing compns. for petroleum and gas wells containing **hydraulic** cement binder and polymeric latex additive)

IT 64112-34-1

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(cement compns. containing; cementing compns. for petroleum and gas wells containing **hydraulic cement** binder and polymeric latex additive)

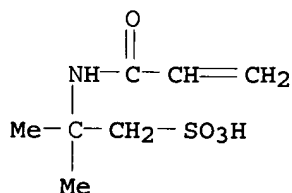
RN 64112-34-1 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

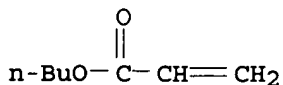
CMF C7 H13 N O4 S



CM 2

CRN 141-32-2

CMF C7 H12 O2



CM 3

CRN 100-42-5  
CMF C8 H8 $\text{H}_2\text{C}=\text{CH}-\text{Ph}$ RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:534001 HCAPLUS

DN 141:75465

TI **Hydraulic** cementitious composition with improved bleeding resistance

IN Goodwin, Frederick R.

PA Construction Research &amp; Technology GmbH, Germany

SO U.S. Pat. Appl. Publ., 16 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004127606	A1	20040701	US 2003-626971	20030725
PRAI	US 2002-403482P	P	20020814		

AB A method of making a grout composition which reduces the amount of bleed water from grout used in bonded post-tensioned concrete applications is provided. The method includes forming the grout composition by combining copolymers with other materials into a **hydraulic** cementitious composition. The copolymers are formed from (a) (meth)acrylic acid esters or amides bearing sulfonic acid or salt groups, (b) (meth)acrylic acids, their esters, amides, vinylamide compds. bearing amino groups, (c) (meth)acrylic acid derivs. or compds. containing quaternary ammonium groups, and optionally (d) compds. which are mono-unsatd. compds., with a generally linear macromol. structure. By reducing the amount of bleed water in bonded post-tensioned concrete applications the grout composition provides protection from corrosion for the steel members, including stranded tendons and solid bars. The reduction in the amount of bleed water is achieved without significantly increasing the viscosity of the grout mixture thereby allowing good pumpability, placement, and maintenance of other properties such as resistance to volume change, long working time and acceptable strength development.

IC ICM C08K003-00

INCL 524002000

CC 58-1 (**Cement**, Concrete, and Related Building Materials)

Section cross-reference(s): 37

ST grout **hydraulic** cementitious compn bleed water redn polymer;

post tensioned concrete bleed water redn polymer

IT Clays, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(calcined; use of polymers in **hydraulic** cementitious composition such as grout for improving bleeding resistance)

IT Polyelectrolytes

(cationic; use of polymers in **hydraulic** cementitious composition such as grout for improving bleeding resistance)

IT Ashes (residues)

*applicant*

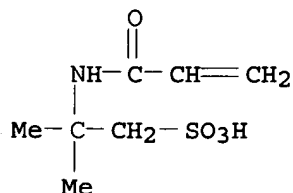
- (fly; use of polymers in **hydraulic cementitious** composition such as grout for improving bleeding resistance)
- IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (unsatd. esters, block copolymers; use of polymers in **hydraulic cementitious** composition such as grout for improving bleeding resistance)
- IT Cement  
 Concrete  
 Grout  
 Slags  
 (use of polymers in **hydraulic cementitious** composition such as grout for improving bleeding resistance)
- IT Nitrates, uses  
 Siliceous sedimentary rocks  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (use of polymers in **hydraulic cementitious** composition such as grout for improving bleeding resistance)
- IT 57-55-6D, Propylene glycol, unsatd. esters, block copolymers 74-85-1D, Ethylene, copolymers 79-10-7D, Acrylic acid, copolymers 79-41-4D, Methacrylic acid, copolymers 80-62-6D, Methyl methacrylate, copolymers 96-33-3D, Methyl acrylate, copolymers 97-65-4D, Itaconic acid, copolymers 97-90-5D, Ethylene glycol dimethacrylate, copolymers 100-42-5D, Styrene, copolymers 103-11-7D, copolymers 105-76-0D, Dibutyl maleate, copolymers 106-99-0D, Butadiene, copolymers 107-13-1D, Acrylonitrile, copolymers 107-21-1D, Ethylene glycol, unsatd. esters, block copolymers 108-05-4D, Vinyl acetate, copolymers 108-31-6D, Maleic anhydride, copolymers 110-16-7D, Maleic acid, copolymers 110-17-8D, Fumaric acid, copolymers 110-26-9D, N,N'-Methylenebisacrylamide, block copolymers 110-63-4D, 1,4-Butanediol, unsatd. esters, block copolymers 111-29-5D, 1,5-Pentanediol, unsatd. esters, block copolymers 115-07-1D, Propylene, copolymers 115-11-7D, Isobutene, copolymers 140-88-5D, Ethyl acrylate, copolymers 141-05-9D, Diethyl maleate, copolymers 141-32-2D, Butyl acrylate, copolymers 591-87-7D, Allyl acetate, copolymers 629-11-8D, 1,6-Hexanediol, unsatd. esters, block copolymers 764-78-3D, Ethylene glycol divinyl ether, block copolymers 1025-15-6D, Triallyl isocyanurate, block copolymers 1184-84-5D, Vinylsulfonic acid, copolymers 2274-11-5D, Ethylene glycol diacrylate, copolymers 2359-15-1D, N,N'-Methylenebis-methacrylamide, block copolymers 7529-27-3D, Ethylene glycol diallyl ether, block copolymers 15625-89-5D, Trimethylolpropane triacrylate, block copolymers 25322-69-4D, Polypropylene glycol, unsatd. esters, block copolymers 25377-73-5D, Dodecenylsuccinic anhydride, copolymers 26914-43-2D, Styrenesulfonic acid, copolymers 71545-61-4D, Propylene glycol divinyl ether, block copolymers 79719-27-0D, block copolymers 88031-77-0, 2-Acrylamido-2-methylpropanesulfonic acid-N,N, dimethylacrylamide copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (use of polymers in **hydraulic cementitious** composition such as **grout** for improving bleeding resistance)
- IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 37293-22-4, Calcium sulfoaluminate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (use of polymers in **hydraulic cementitious** composition such as grout for improving bleeding resistance)
- IT 88031-77-0, 2-Acrylamido-2-methylpropanesulfonic acid-N,N, dimethylacrylamide copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (use of polymers in **hydraulic cementitious** composition such as **grout** for improving bleeding resistance)
- RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

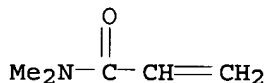
CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7

CMF C5 H9 N O



L51 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:719412 HCAPLUS

DN 139:249105

TI Improved lightweight well cement compositions and methods of cementing subterranean zones utilizing the compositions

IN Dao, Bach; Ravi, Krishna M.; Vijn, Jan Pieter; Noik, Christine; Rivereau, Alain

PA Halliburton Energy Services, Inc., USA; Wain, Christopher Paul; Institut Francais Du Petrole

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074443	A1	20030912	WO 2002-GB1024	20020306
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2478077	AA	20030912	CA 2002-2478077	20020306
BR 2002015629	A	20041207	BR 2002-15629	20020306

EP 1483220 A1 20041208 EP 2002-704921 20020306  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 PRAI WO 2002-GB1024 W 20020306  
 AB Lightwt. cement compns. and methods of cementing a subterranean zone  
 penetrated by a well bore utilizing the compns. are provided. A lightwt.  
 cement composition of the invention is basically comprised of a coarse  
 particulate **hydraulic** cement, an ultrafine particulate  
**hydraulic** cement mixture comprised of slag cement and a Portland or  
 equivalent cement, fly ash, fumed silica, hollow glass spheres and water.  
 IC ICM C04B028-02  
 ICS E21B033-13; C04B014-24; C04B018-08; C04B018-14; C04B022-12;  
 C04B024-16  
 CC 58-1 (**Cement**, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38, 51  
 ST lightwt cement slurry subterranean cementing well bore; slag cement  
 Portland fly ash fumed silica glass sphere; polymer fluid loss control  
 additive well bore cement slurry  
 IT Particle size  
 Surface area  
 (cement; improved lightwt. cement compns. for cementing subterranean  
 zones penetrated by well bores)  
 IT Ashes (residues)  
 (fly, cement slurries; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)  
 IT Glass spheres  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (hollow glass spheres, cement slurries; improved lightwt. cement  
 compns. for cementing subterranean zones penetrated by well bores)  
 IT Cement  
 Setting agents  
 Slurries  
 Wells  
 (improved lightwt. cement compns. for cementing subterranean zones  
 penetrated by well bores)  
 IT Cement  
 (portland; improved lightwt. cement compns. for cementing subterranean  
 zones penetrated by well bores)  
 IT Concrete modifiers  
 (set retarders; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)  
 IT Hardening (mechanical)  
 (setting, set accelerators/retarders; improved lightwt. cement compns.  
 for cementing subterranean zones penetrated by well bores)  
 IT Recycling  
 (slag and fly ash; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)  
 IT Cement  
 (slag; improved lightwt. cement compns. for cementing subterranean  
 zones penetrated by well bores)  
 IT 50-00-0D, Formaldehyde, reaction products with acetone and sodium sulfite,  
 condensation product with cement composition 67-64-1D, Acetone, reaction  
 products with formaldehyde and sodium sulfite, condensation product with  
 cement composition 7757-83-7D, Sodium sulfite, reaction products with acetone  
 and formaldehyde, condensation product with cement composition  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersing agent; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)  
 IT 9005-53-2D, Lignin, derivs., graft copolymers 15214-89-8D,  
 2-Acrylamido-2-methylpropanesulfonic acid, lignin graft copolymers

88031-77-0

RL: MOA (Modifier or additive use); USES (Uses)  
 (fluid loss control additive; improved lightwt. cement  
 compns. for cementing subterranean zones penetrated by well  
 bores)

IT 7631-86-9, Silica, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (fumed and flour; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)

IT 40623-75-4 147836-06-4

RL: MOA (Modifier or additive use); USES (Uses)  
 (set retarder; improved lightwt. cement compns. for  
 cementing subterranean zones penetrated by well bores)

IT 10043-52-4, Calcium chloride, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (setting accelerator; improved lightwt. cement compns. for cementing  
 subterranean zones penetrated by well bores)

IT 88031-77-0

RL: MOA (Modifier or additive use); USES (Uses)  
 (fluid loss control additive; improved lightwt. cement  
 compns. for cementing subterranean zones penetrated by well  
 bores)

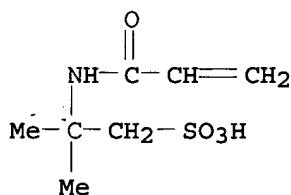
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer  
 with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

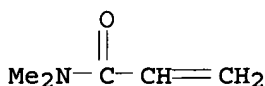
CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7

CMF C5 H9 N O



IT 40623-75-4 147836-06-4

RL: MOA (Modifier or additive use); USES (Uses)  
 (set retarder; improved lightwt. cement compns. for  
 cementing subterranean zones penetrated by well bores)

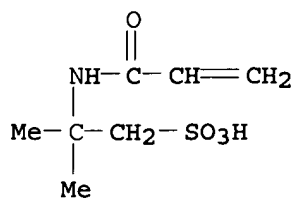
RN 40623-75-4 HCAPLUS

CN 2-Propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-  
 propanesulfonic acid (9CI) (CA INDEX NAME)



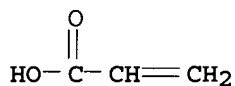
CM 1

CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 2

CRN 79-10-7  
CMF C3 H4 O2

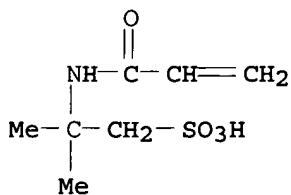


RN 147836-06-4 HCAPLUS

CN Butanedioic acid, methylene-, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

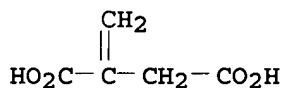
CM 1

CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 2

CRN 97-65-4  
CMF C5 H6 O4



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STM

AN 2003:544678 HCAPLUS

DN 139:121310

TI Cement slurry compositions for petroleum wells containing methacrylate  
terpolymer dispersing agents

IN Chatterji, Jiten; Brenneis, D. Chad; Gray, Dennis W.; Keener, Krista L.

PA Halliburton Energy Services, Inc., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6591910	B1	20030715	US 2003-353731	20030129
	WO 2004067469	A1	20040812	WO 2003-GB1874	20030501
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 6645292	B1	20031111	US 2003-434570	20030509
	US 2004226483	A1	20041118	US 2003-702960	20031106
	US 6843846	B2	20050118		
PRAI	US 2003-353731	A	20030129		
	US 2003-434570	B1	20030509		
AB	Cement slurry compns. for use in sealing portions of petroleum wells contain 0.01-1 weight% dispersing agents composed of terpolymers of methacrylic acid, methacrylates, methallylsulfonic acid, and ethoxylated acrylic acid, in which the polymer contains 50-60 weight% units methacrylic acid, 10 weight% methacrylates, 10 weight% methallylsulfonic acid, and ethoxylated acrylic acid (with d.p. 30-120) 20-30 weight%. The hydraulic cement component in the cement composition is selected from portland cements, slag cements, pozzolan cements, gypsum cements, alumina cements, and silica cements. In addition, the cement slurry can contain 0.5-2 weight% of a fluid loss control agent consisting of a copolymer of 2-acrylamido-2-methylpropanesulfonic acid, N,N'-dimethylacrylamide, and (optionally) hydroxyethyl cellulose.				
IC	ICM E21B033-138				
INCL	166293000; 106725000; 106728000; 106809000; 106810000; 106823000; 166295000; 507227000; 507269000; 524005000				
CC	58-1 (Cement, Concrete, and Related Building Materials) Section cross-reference(s): 51				
ST	cement slurry dispersing agent petroleum well cementing; methacrylate terpolymer dispersing agent cement slurry petroleum well				
IT	Dispersing agents (cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)				
IT	Petroleum recovery (cementing in; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)				
IT	Oil wells (cementing of; cement slurry compns. for petroleum wells containing				

methacrylate terpolymer dispersing agents)

IT Well treatment fluids  
(cementing; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT Cement  
(gypsum-type and silica-type, slurries; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT Cement  
(portland, slurries; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT Cement  
(pozzolan, slurries; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT Cement  
(slag, slurries; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT Cement  
(slurries; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 9004-62-0, Hydroxyethyl cellulose  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(Halad 9, Halad 23, fluid loss control additive; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 79-41-4D, Methacrylic acid, polymers with methacrylates, methallylsulfonic acid, and ethoxylated acrylic acid 79-41-4D, Methacrylic acid, salts, polymers with methacrylic acid, methallylsulfonic acid, and ethoxylated acrylic acid 3934-16-5D, Methallylsulfonic acid, polymers with methacrylic acid, methacrylates, and ethoxylated acrylic acid 26403-58-7D, polymers with methacrylic acid, methacrylates, and methallylsulfonic acid 561306-09-0, DA 1 (dispersant) 561306-10-3, DA 2 (dispersant)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cement dispersant; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 142540-03-2, CFR 3 (dispersant)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dispersant; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 7631-86-9, Silica, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(flour, slurries containing; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 88031-77-0 88031-77-0, Halad 344  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss control agent; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

IT 1332-37-2, Iron oxide, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(weighting agent; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

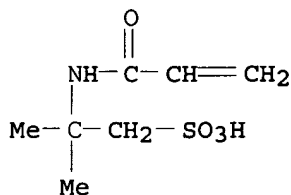
IT 88031-77-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss control agent; cement slurry compns. for petroleum wells containing methacrylate terpolymer dispersing agents)

RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

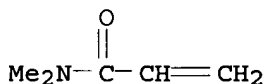
CM 1

CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7  
CMF C5 H9 N O



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:389891 HCAPLUS

DN 138:372964

TI **Hydraulic** cement composition for elution prevention of hexavalent chromium

IN Nakanishi, Hiroshi; Ishimori, Masaki; Tsukada, Kazuhisa; Yamada, Kazuo

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003146725	A2	20030521	JP 2001-348552	20011114
PRAI	JP 2001-348552		20011114		

AB The composition with good dispersibility contains Fe sulfate (e.g., FeSO<sub>4</sub>, its hydrates), cement, and polycarboxylic acid-type polymers. Since Fe sulfate acts as a reducing agent for Cr(VI), the elution of Cr(VI) from the composition to environment when cement contains recycled wastes, is prevented.

IC ICM C04B028-02

ICS C08F220-06; C08F290-06; C04B022-14; C04B024-26; C08F220-26

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST **hydraulic** cement iron sulfate polycarboxylic acid polymer blend; hexavalent chromium elution prevention cement iron sulfate

IT Cement

(**hydraulic** cement composition containing Fe sulfate and polycarboxylic acid polymers for elution prevention of hexavalent Cr and dispersibility)

IT 7720-78-7 379692-46-3 404573-99-5 404577-38-4  
 , Ethylene oxide-methacrylic acid-methyl acrylate-sodium  
 methacrylsulfonate graft copolymer methyl ether 404578-16-1,  
 Ethylene oxide-ethyl methacrylate-methacrylic acid-sodium  
 methacrylsulfonate graft copolymer methyl ether 523981-66-0  
 523981-71-7, Ethylene oxide-ethyl methacrylate-maleic  
 anhydride-sodium methacrylsulfonate graft copolymer methyl ether  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered  
 material use); USES (Uses)  
 (hydraulic cement composition containing Fe sulfate and  
 polycarboxylic acid polymers for elution prevention of hexavalent Cr  
 and dispersibility)

IT 379692-46-3 404573-99-5 404577-38-4, Ethylene  
 oxide-methacrylic acid-methyl acrylate-sodium methacrylsulfonate graft  
 copolymer methyl ether 404578-16-1, Ethylene oxide-ethyl  
 methacrylate-methacrylic acid-sodium methacrylsulfonate graft copolymer  
 methyl ether 523981-66-0 523981-71-7, Ethylene  
 oxide-ethyl methacrylate-maleic anhydride-sodium methacrylsulfonate graft  
 copolymer methyl ether  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered  
 material use); USES (Uses)  
 (hydraulic cement composition containing Fe sulfate and  
 polycarboxylic acid polymers for elution prevention of hexavalent Cr  
 and dispersibility)

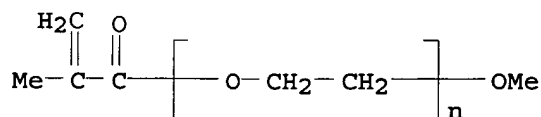
RN 379692-46-3 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with  $\alpha$ -(2-methyl-1-oxo-2-  
 propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate and  
 sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

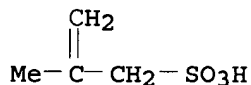
CCI PMS



CM 2

CRN 1561-92-8

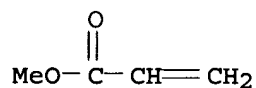
CMF C4 H8 O3 S . Na



● Na

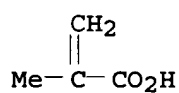
CM 3

CRN 96-33-3  
CMF C4 H6 O2



CM 4

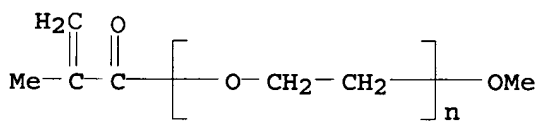
CRN 79-41-4  
CMF C4 H6 O2



RN 404573-99-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

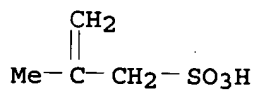
CM 1

CRN 26915-72-0  
CMF (C2 H4 O)<sub>n</sub> C5 H8 O2  
CCI PMS



CM 2

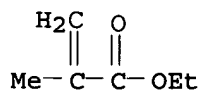
CRN 1561-92-8  
CMF C4 H8 O3 S . Na



● Na

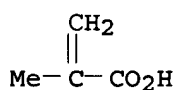
CM 3

CRN 97-63-2  
CMF C6 H10 O2



CM 4

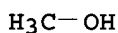
CRN 79-41-4  
CMF C4 H6 O2



RN 404577-38-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-propenoate, oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O

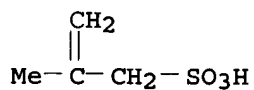


CM 2

CRN 404577-37-3  
CMF (C4 H8 O3 S . C4 H6 O2 . C4 H6 O2 . C2 H4 O . Na)x  
CCI PMS

CM 3

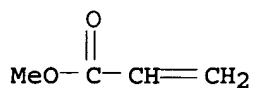
CRN 1561-92-8  
CMF C4 H8 O3 S . Na



● Na

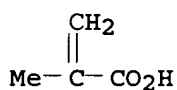
CM 4

CRN 96-33-3  
CMF C4 H6 O2



CM 5

CRN 79-41-4  
CMF C4 H6 O2



CM 6

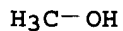
CRN 75-21-8  
CMF C2 H4 O



RN 404578-16-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate, oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O



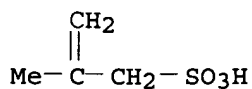
CM 2

CRN 404578-15-0  
CMF (C6 H10 O2 . C4 H8 O3 S . C4 H6 O2 . C2 H4 O . Na)x  
CCI PMS

CM 3

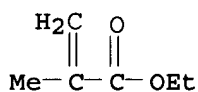
CRN 1561-92-8  
CMF C4 H8 O3 S . Na



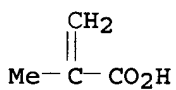


● Na

CM 4  
CRN 97-63-2  
CMF C6 H10 O2



CM 5  
CRN 79-41-4  
CMF C4 H6 O2

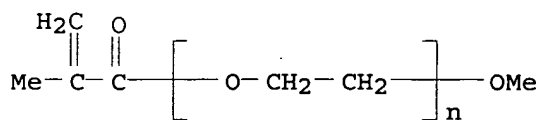


CM 6  
CRN 75-21-8  
CMF C2 H4 O



RN 523981-66-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with 2,5-furandione,  
α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA  
INDEX NAME)

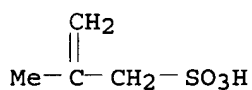
CM 1  
CRN 26915-72-0  
CMF (C2 H4 O)<sub>n</sub> C5 H8 O2  
CCI PMS



CM 2

CRN 1561-92-8

CMF C4 H8 O3 S . Na

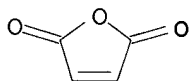


● Na

CM 3

CRN 108-31-6

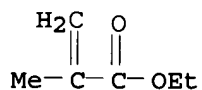
CMF C4 H2 O3



CM 4

CRN 97-63-2

CMF C6 H10 O2



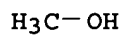
RN 523981-71-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with 2,5-furandione, oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O



CM 2

CRN 523981-70-6

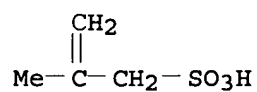
CMF (C6 H10 O2 . C4 H8 O3 S . C4 H2 O3 . C2 H4 O . Na)x

CCI PMS

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na

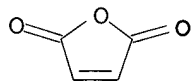


● Na

CM 4

CRN 108-31-6

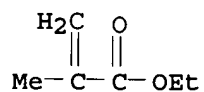
CMF C4 H2 O3



CM 5

CRN 97-63-2

CMF C6 H10 O2



CM 6

CRN 75-21-8

CMF C2 H4 O



AN 2003:5056 HCAPLUS  
 DN 138:43420  
 TI Preparation of high-strength lightweight well cement compositions  
 containing fly-ash, fumed silica and hollow glass microspheres  
 IN Vijn, Jan Pieter; Dao, Bach; Ravi, Krishna M.; Noik, Christine; Rivereau,  
 Alain  
 PA Neth.  
 SO U.S. Pat. Appl. Publ., 9 pp., Cont. of U. S. Ser. NO. 664,487, abandoned.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003000423	A1	20030102	US 2002-86024	20020228
	<u>US 6562122</u>	B2	20030513		
	US 2003150615	A1	20030814	US 2003-372379	20030221
PRAI	US 2000-664487	B1	20000918		
	US 2002-86024	A3	20020228		
AB	Lightwt. cement compns. for cementing subterranean zones penetrated by a well bore are comprised of a coarse particulate hydraulic cement, an ultrafine particulate hydraulic cement mixture containing slag cement and Portland cement, fly ash, fumed silica, hollow glass spheres and water. The cementitious compns. also contains additives such as dispersing agents, set-accelerator, set-retarders and/or silica flour to prevent strength retrogression of set cement.				
IC	ICM C04B014-24 ICS C04B018-06; C04B038-00				
INCL	106676000; 106709000				
CC	58-1 (Cement, Concrete, and Related Building Materials) Section cross-reference(s): 38, 60				
ST	well bore cement fly ash silica glass microsphere compn				
IT	Particle size (cement; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Natural gas wells Oil wells Wells (cementing compns. for; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Recycling (fly ash; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Ashes (residues) (fly, in lightwt. well cementing compns.; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Polymers, uses RL: MOA (Modifier or additive use); USES (Uses) (graft, fluid control loss additive; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Glass microspheres RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process) (hollow, in lightwt. well cementing compns.; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)				
IT	Cement (in lightwt. well cementing compns.; preparation of high-strength lightwt.				

well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT Cement  
(portland, in lightwt. well cementing compns.; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT Compressive strength  
Dispersing agents  
(preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT Setting agents  
(set accelerator; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT Concrete modifiers  
(set retarders; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT Cement  
(slag, in lightwt. well cementing compns.; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT 7631-86-9, Fumed silica, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(colloidal, in lightwt. well cementing compns.; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT 88031-77-0, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-dimethylacrylamide copolymer 478957-62-9D, Lignin-2-acrylamido-2-methylpropanesulfonic acid copolymer graft, salt compns.  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid control loss additive; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT 10043-52-4, Calcium chloride, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(set accelerator; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT 40623-75-4, 2-Acrylamido-2-methylpropanesulfonic acid-acrylic acid copolymer 147836-06-4, 2-Acrylamido-2-methylpropanesulfonic acid-itaconic acid copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(set retarders; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

IT 88031-77-0, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-dimethylacrylamide copolymer 478957-62-9D, Lignin-2-acrylamido-2-methylpropanesulfonic acid copolymer graft, salt compns.  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid control loss additive; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

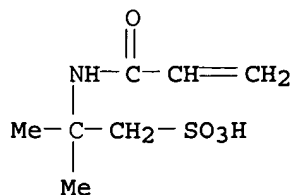
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

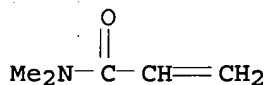
CRN 15214-89-8

CMF C7 H13 N O4 S



CM 2

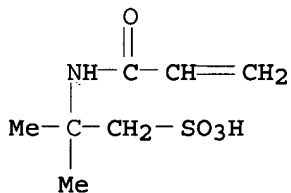
CRN 2680-03-7  
 CMF C5 H9 N O



RN 478957-62-9 HCAPLUS  
 CN Lignin, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8  
 CMF C7 H13 N O4 S



CM 2

CRN 9005-53-2  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

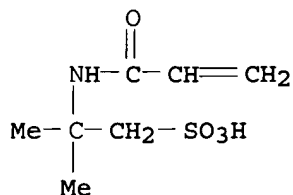
IT 40623-75-4, 2-Acrylamido-2-methylpropanesulfonic acid-acrylic acid copolymer 147836-06-4, 2-Acrylamido-2-methylpropanesulfonic acid-itaconic acid copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (set retarders; preparation of high-strength lightwt. well cement compns. containing fly-ash, fumed silica and hollow glass microspheres)

RN 40623-75-4 HCAPLUS  
 CN 2-Propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

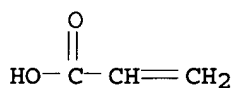
CMF C7 H13 N O4 S



CM 2

CRN 79-10-7

CMF C3 H4 O2



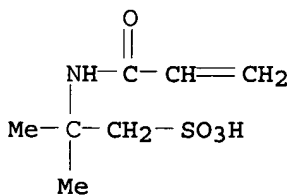
RN 147836-06-4 HCAPLUS

CN Butanedioic acid, methylene-, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

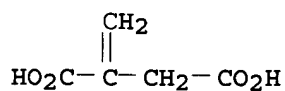
CMF C7 H13 N O4 S



CM 2

CRN 97-65-4

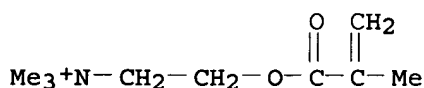
CMF C5 H6 O4



AN 2002:688722 HCAPLUS  
DN 137:328483  
TI Study on **cement mortar** modified by VAC/DMC soap-free  
cationic emulsion copolymerization  
AU Wang, Jingang; Zhang, Shuxiang; Zhu, Hong; Sun, Guofeng  
CS School of Chemical and Environmental Engineering, Jinan University, Jinan,  
250022, Peop. Rep. China  
SO Guisuanyan Xuebao (2002), 30(4), 429-433  
CODEN: KSYHA5; ISSN: 0454-5648  
PB Zhongguo Guisuanyan Xuehui  
DT Journal  
LA Chinese  
AB **Cement mortars** were modified with the soap-free  
cationic emulsion copolymer of vinylacetic acid (VAC) and  
methacryloyloxyethyl trimethylammonium chloride (DMC). The properties of  
the modified **mortars** were compared with those modified with  
polyvinyl acetate (PVAC). The results indicate that in comparison with  
plain **cement mortar**, the bending strength of the  
**mortars** modified with soap-free emulsion of VAC/DMC  
[m(p)/m(c)=0.1] increases by 77%, better than with PVAC. The mechanism of  
the modification is discussed.  
CC 58-3 (Cement, Concrete, and Related Building Materials)  
Section cross-reference(s): 38  
ST **cement mortar** strength cationic emulsion copolymer  
admxt  
IT **Mortar**  
(**cement**; effects of vinylacetic acid-methacryloyloxyethyl  
trimethylammonium chloride cationic emulsion copolymer on properties of  
**cement mortar**)  
IT Bending strength  
(effects of vinylacetic acid-methacryloyloxyethyl trimethylammonium  
chloride cationic emulsion copolymer on properties of **cement**  
**mortar**)  
IT **Cement**  
(**mortar**; effects of vinylacetic acid-methacryloyloxyethyl  
trimethylammonium chloride cationic emulsion copolymer on properties of  
**cement mortar**)  
IT 9003-20-7, Vinyl acetate polymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(**mortar** admxt.; comparative effects of vinylacetic  
acid-methacryloyloxyethyl trimethylammonium chloride cationic emulsion  
copolymer on properties of **cement mortar**, to  
polyvinyl acetate)  
IT 72199-13-4  
RL: MOA (Modifier or additive use); USES (Uses)  
(**mortar** admxt.; effects of vinylacetic acid-  
methacryloyloxyethyl trimethylammonium chloride cationic emulsion  
copolymer on properties of **cement mortar**)  
IT 72199-13-4  
RL: MOA (Modifier or additive use); USES (Uses)  
(**mortar** admxt.; effects of vinylacetic acid-  
methacryloyloxyethyl trimethylammonium chloride cationic emulsion  
copolymer on properties of **cement mortar**)  
RN 72199-13-4 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)  
CM 1  
CRN 5039-78-1



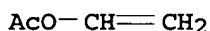
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 2

CRN 108-05-4

CMF C4 H6 O2



L51 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:658048 HCAPLUS

DN 137:189403

TI Method of controlling the viscosity of a **cementitious** mixture using oppositely-charged polyelectrolytes

IN Schlenoff, Joseph B.

PA Florida State University Research Foundation, Inc., USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002066393	A1	20020829	WO 2002-US585	20020109
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004060481	A1	20040401	US 2003-250412	20030701
PRAI	US 2001-260702P	P	20010110		
	WO 2002-US585	W	20020109		

AB A process for increasing the viscosity of an aqueous **cementitious** mixture during its working state by mixing oppositely-charge polyelectrolytes into the **cementitious** mixture. The method can be used to enhance the viscosity of a **cementitious** mixture without a neg. impact on the hardening properties and final mech. strength of the **cementitious** material. Also, an extraordinarily small amount of polyelectrolyte is required (e.g., in a test using poly(diallyldimethylammonium chloride)/poly(styrenesulfonic acid) polyelectrolytes, the total polymer content was only 0.016 % by weight of the

**cementitious** mixture).

IC ICM C04B024-12  
ICS C04B024-16; C04B028-02; C04B040-00

CC 58-1 (**Cement**, Concrete, and Related Building Materials)  
Section cross-reference(s): 38

ST viscosity control **cementitious** mixt oppositely charged  
polyelectrolyte; **cement** viscosity control oppositely charged  
polyelectrolyte additive

IT **Cement**  
Polyelectrolytes  
Viscosity  
(controlling viscosity of **cementitious** mixts. using  
oppositely-charged polyelectrolytes)

IT Ionene polymers  
Quaternary ammonium compounds, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(electrolyte; controlling viscosity of **cementitious** mixts.  
using oppositely-charged polyelectrolytes)

IT Ashes (residues)  
(fly, admixt., in **cement**; controlling viscosity of  
**cementitious** mixts. using oppositely-charged polyelectrolytes)

IT Recycling  
(of fly ash; controlling viscosity of **cementitious** mixts.  
using oppositely-charged polyelectrolytes)

IT 25609-94-3 26062-79-3, Poly(diallyldimethylammonium chloride)  
53867-18-8 54076-97-0 79048-18-3 451479-15-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(electrolyte; controlling viscosity of **cementitious** mixts.  
using oppositely-charged polyelectrolytes)

IT 7631-86-9, Silica, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(in **cement**; controlling viscosity of **cementitious**  
mixts. using oppositely-charged polyelectrolytes)

IT 8062-15-5D, Lignosulfonic acid, sulfonated, uses 9000-07-1, Carrageenin  
26101-52-0, Poly(ethylenesulfonic acid) 27119-07-9, Poly(2-acrylamido-2-  
methyl-1-propanesulfonic acid) 29382-27-2 50851-57-5,  
Poly(styrenesulfonic acid)  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyelectrolyte; controlling viscosity of **cementitious**  
mixts. using oppositely-charged polyelectrolytes)

IT 25609-94-3 54076-97-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(electrolyte; controlling viscosity of **cementitious** mixts.  
using oppositely-charged polyelectrolytes)

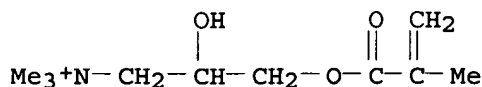
RN 25609-94-3 HCAPLUS

CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-  
propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 13052-11-4

CMF C10 H20 N O3 . Cl

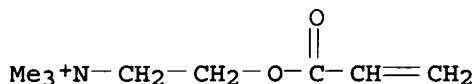


● Cl<sup>-</sup>

RN 54076-97-0 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,  
 homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 44992-01-0  
 CMF C8 H16 N O2 . Cl



● Cl<sup>-</sup>

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:204942 HCAPLUS

DN 136:251440

TI **Hydraulic** composition containing C3A cement component and  
 polymer additive

IN Nakanishi, Hiroshi; Kaneda, Yoshihisa; Ishimori, Masaki

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002080259	A2	20020319	JP 2000-273141	20000908
PRAI	JP 2000-273141		20000908		

AB The composition contains (1) a cement clinker containing C3S, C2S, and/or C4AF and C3A, (2) coal ash, slag, limestone, and/or silica fume, (3) gypsum, and (4) polycarboxylic acid-type polymer. The cement composition provides stable flowability after mixing with water and high initial strength.

IC ICM C04B028-04

ICS C04B007-02; C04B028-08; C08F290-06; C04B028-04; C04B018-10;  
 C04B018-14; C04B014-28; C04B022-06; C04B022-14; C04B024-26;  
 C04B024-06; C04B024-10; C04B022-12; C04B103-20; C04B103-32;  
 C04B103-40; C04B111-20

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST C3A cement **hydraulic** compn polycarboxylic acid polymer additive

IT Polyoxyalkylenes, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(acrylic, graft; **hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT Slags  
(blast-furnace; **hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT Ashes (residues)  
(coal; **hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT Cement  
(**hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT Limestone, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT 7631-86-9, Silica fume, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(amorphous, fume; **hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT 379692-46-3 404573-99-5 404577-38-4, Ethylene oxide-methacrylic acid-methyl acrylate-sodium methallylsulfonate graft copolymer methyl ether 404578-16-1, Ethyl methacrylate-ethylene oxide-methacrylic acid-sodium methallylsulfonate graft copolymer methyl ether  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(**hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT 10034-77-2, C2S Cement component 12042-78-3, C3A Cement component 12068-35-8, C4AF cement component 12168-85-3, C3S Cement component 26499-65-0, Plaster of Paris  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

IT 379692-46-3 404573-99-5 404577-38-4, Ethylene oxide-methacrylic acid-methyl acrylate-sodium methallylsulfonate graft copolymer methyl ether 404578-16-1, Ethyl methacrylate-ethylene oxide-methacrylic acid-sodium methallylsulfonate graft copolymer methyl ether  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(**hydraulic** composition containing C3A cement component and polycarboxylic acid-type polymer additive)

RN 379692-46-3 HCAPLUS

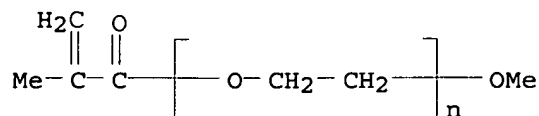
CN 2-Propenoic acid, 2-methyl-, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

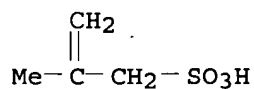
CCI PMS



CM 2

CRN 1561-92-8

CMF C4 H8 O3 S . Na

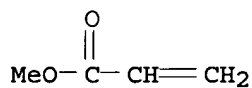


● Na

CM 3

CRN 96-33-3

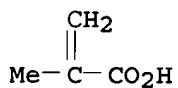
CMF C4 H6 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



RN 404573-99-5 HCAPLUS

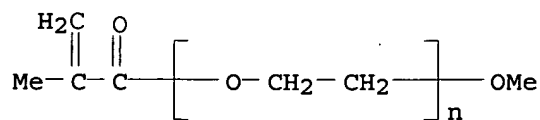
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

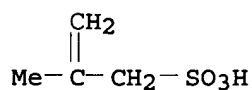
CCI PMS



CM 2

CRN 1561-92-8

CMF C4 H8 O3 S . Na

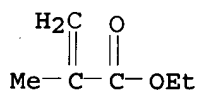


● Na

CM 3

CRN 97-63-2

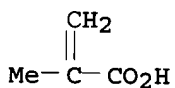
CMF C6 H10 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



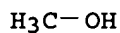
RN 404577-38-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-propenoate, oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O



CM 2

CRN 404577-37-3

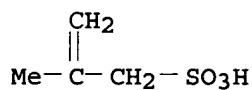
CMF (C4 H8 O3 S . C4 H6 O2 . C4 H6 O2 . C2 H4 O . Na)x

CCI PMS

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na

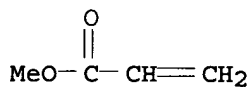


● Na

CM 4

CRN 96-33-3

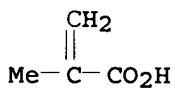
CMF C4 H6 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



CM 6

CRN 75-21-8

CMF C2 H4 O



RN 404578-16-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-methyl-2-propenoate,

oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft  
(9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O

$\text{H}_3\text{C}-\text{OH}$

CM 2

CRN 404578-15-0

CMF (C6 H10 O2 . C4 H8 O3 S . C4 H6 O2 . C2 H4 O . Na)x

CCI PMS

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na

$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me}-\text{C}-\text{CH}_2-\text{SO}_3\text{H} \end{array}$

● Na

CM 4

CRN 97-63-2

CMF C6 H10 O2

$\begin{array}{c} \text{H}_2\text{C} \quad \text{O} \\ || \quad || \\ \text{Me}-\text{C}-\text{C}-\text{OEt} \end{array}$

CM 5

CRN 79-41-4

CMF C4 H6 O2

$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me}-\text{C}-\text{CO}_2\text{H} \end{array}$

CM 6



CRN 75-21-8  
CMF C2 H4 O



L51 ANSWER 11 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:603435 HCAPLUS

DN 135:184482

TI **Hydraulic** aluminous cement compositions containing vinyl polymer-type dispersant

IN Kinoshita, Mitsuo; Tamaki, Shinji; Kodama, Atsushi; Okada, Kazutoshi; Hoshino, Minoru

PA Takemoto Oil and Fat Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001226163	A2	20010821	JP 2000-36268	20000215
	JP 3602026	B2	20041215		
PRAI	JP 2000-36268		20000215		

AB The title compns. contain aluminous cement, water, aggregate and 0.05-3.0 parts (vs. 100 parts aluminous cement) dispersant comprising water-soluble vinyl copolymer containing a structural unit (A) CH<sub>2</sub>CR<sub>1</sub>CO<sub>2</sub>M<sub>1</sub> 40-80, (B) CH<sub>2</sub>CMeCO<sub>2</sub>X 0.5-20, (C) CH<sub>2</sub>CR<sub>2</sub>CO<sub>2</sub>AOR<sub>3</sub> 2-40, and (D) CH<sub>2</sub>CR<sub>4</sub>CO<sub>2</sub>Me 0.2-15 mol.% [R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> = H or Me; R<sub>3</sub> = H or C<sub>1</sub>-3 alkyl; X = SO<sub>3</sub>M<sub>2</sub> or OC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>M<sub>3</sub>; A = residual group deleting OH group from polyether diol having repeating number of oxyalkylene unit comprising oxyethylene unit or oxyethylene and oxypropylene units 5-109; M<sub>1</sub> = H, alkali or alkaline-earth metal, ammonium or organic amine; M<sub>2</sub>, M<sub>3</sub> = alkali or alkaline-earth metal, ammonium or organic amine], of which the weight average mol. weight is 15,000-100,000 and its weight average mol. weight to numerical average mol. weight ratio is 2-7. The

said compns. give mortar having long pot life with excellent flowability and high early strength.

IC ICM C04B028-06

ICS C04B028-06; C04B024-26; C04B103-40; C04B111-26

CC 58-1 (Cement, Concrete, and Related Building Materials)

ST aluminous cement dispersant polyoxyalkylene vinyl copolymer flowability

IT Polyoxyalkylenes, preparation

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(acrylic, graft; polyoxyalkylene-containing vinyl polymer-type dispersant for aluminous cement compns.)

IT Cement (construction material)

(aluminous; polyoxyalkylene-containing vinyl polymer-type dispersant for aluminous cement compns.)

IT Concrete

Dispersing agents

Mortar

(polyoxyalkylene-containing vinyl polymer-type dispersant for aluminous cement compns.)

IT 152383-38-5P, Methoxypolyethylene glycol monomethacrylate-methyl

acrylate-sodium methacrylate-sodium methallylsulfonate graft copolymer  
354985-62-9P 354986-67-7P 354986-69-9P

RL: MOA (Modifier or additive use); PNU (Preparation,  
unclassified); PREP (Preparation); USES (Uses)

(polyoxyalkylene-containing vinyl polymer-type dispersant for aluminous  
cement compns.)

IT 152383-38-5P, Methoxypolyethylene glycol monomethacrylate-methyl  
acrylate-sodium methacrylate-sodium methallylsulfonate graft copolymer  
354985-62-9P 354986-67-7P 354986-69-9P

RL: MOA (Modifier or additive use); PNU (Preparation,  
unclassified); PREP (Preparation); USES (Uses)

(polyoxyalkylene-containing vinyl polymer-type dispersant for aluminous  
cement compns.)

RN 152383-38-5 HCAPLUS

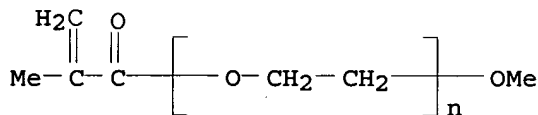
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-  
ethanediyl), methyl 2-propenoate and sodium 2-methyl-2-propene-1-  
sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

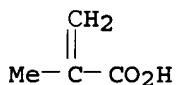
CCI PMS



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na

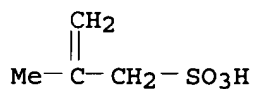


● Na

CM 3

CRN 1561-92-8

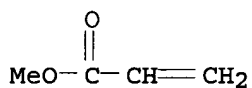
CMF C4 H8 O3 S . Na



● Na

CM 4

CRN 96-33-3  
CMF C4 H6 O2

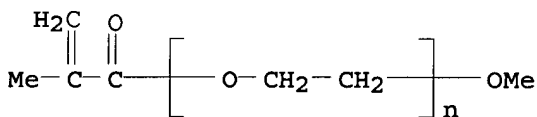


RN 354985-62-9 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), sodium  
4-[(2-methyl-2-propenyl)oxy]benzenesulfonate and sodium 2-propenoate,  
graft (9CI) (CA INDEX NAME)

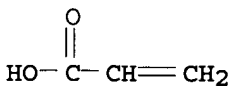
CM 1

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 2

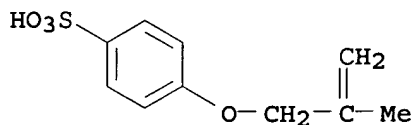
CRN 7446-81-3  
CMF C3 H4 O2 . Na



● Na

CM 3

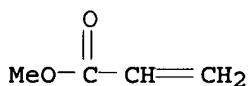
CRN 1208-67-9  
CMF C10 H12 O4 S . Na



● Na

CM 4

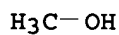
CRN 96-33-3  
CMF C4 H6 O2



RN 354986-67-7 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-propenoate, oxirane, sodium 2-methyl-2-propene-1-sulfonate and sodium 2-methyl-2-propenoate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O

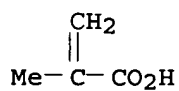


CM 2

CRN 354986-66-6  
CMF (C4 H8 O3 S . C4 H6 O2 . C4 H6 O2 . C4 H6 O2 . C2 H4 O . 2 Na)x  
CCI PMS

CM 3

CRN 5536-61-8  
CMF C4 H6 O2 . Na

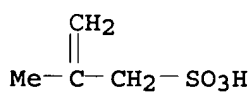


● Na

CM 4

CRN 1561-92-8

CMF C4 H8 O3 S . Na

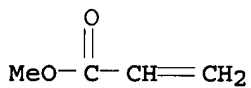


● Na

CM 5

CRN 96-33-3

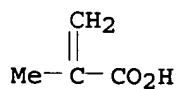
CMF C4 H6 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



CM 7

CRN 75-21-8

CMF C2 H4 O



RN 354986-69-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-propenoate, oxirane,  
 sodium 4-[(2-methyl-2-propenyl)oxy]benzenesulfonate and sodium  
 2-propenoate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O

H<sub>3</sub>C-OH

CM 2

CRN 354986-68-8

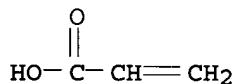
CMF (C10 H12 O4 S . C4 H6 O2 . C4 H6 O2 . C3 H4 O2 . C2 H4 O . 2 Na)x

CCI PMS

CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

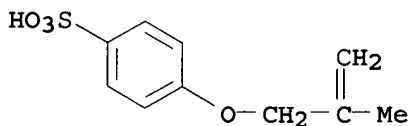


● Na

CM 4

CRN 1208-67-9

CMF C10 H12 O4 S . Na

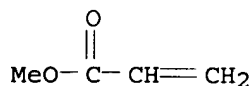


● Na

CM 5

CRN 96-33-3

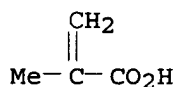
CMF C4 H6 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



CM 7

CRN 75-21-8

CMF C2 H4 O



L51 ANSWER 12 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:587153 HCAPLUS

DN 135:169892

TI Dispersant compositions for dispersing inorganic materials in water

IN Chikugi, Toshitaka; Miyata, Akitaka

PA Nippon NSC K. K., Japan; Nippon NSC Ltd.

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001220196	A2	20010814	JP 2000-31864	20000209
	JP 3643003	B2	20050427		
	WO 2001058579	A1	20010816	WO 2001-US3058	20010131
	W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1409121	A1	20040421	EP 2001-905243	20010131
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2003209695	A1	20031113	US 2003-182474	20030219
PRAI	JP 2000-31864	A	20000209		
	WO 2001-US3058	W	20010131		

AB The title compns. contain polymers having (R1O)nR2 [R1 = ethylene,

- propylene; R2 = H, (un)substituted C1-20 alkyl; n = 1-300], anion groups, and cation groups and are used in the presence of an aqueous solvent to disperse inorg. pigments, hydraulic inorg. materials, etc., in water. Thus, **mortar** prepared with addition of 0.20 part (as solid vs. 100 parts **cement**) polymer having weight average mol. weight 41000, which was prepared from acrylic acid 10, maleic anhydride 6, 2-(dimethylamino)ethyl methacrylate 4, and monomethoxypoly(ethylene oxide) monomethacrylate 80 parts, showed excellent flowability.
- IC ICM C04B024-26  
ICS C04B024-26; B01F017-42; B01F017-52; C08G065-04; C08L071-02;  
C04B103-40
- CC 58-3 (**Cement**, Concrete, and Related Building Materials)  
Section cross-reference(s): 37
- ST hydraulic inorg material dispersant polyoxyalkylene anionic cationic;  
pigment inorg dispersant polyoxyalkylene anionic cationic; **mortar**  
**cement** dispersant polyoxyethylene acrylic polymer
- IT Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, graft; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT **Mortar**  
(**cement** dispersants for; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT Pigments, nonbiological  
(dispersants for; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT Kaolin, miscellaneous  
RL: MSC (Miscellaneous)  
(dispersants for; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT Dispersing agents  
(polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT **Cement** (construction material)  
(portland, dispersants for; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT 471-34-1, Calcium carbonate, miscellaneous 7778-18-9, Calcium sulfate  
13463-67-7, Titania, miscellaneous  
RL: MSC (Miscellaneous)  
(dispersants for; polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT 354133-27-0P 354133-29-2P 354133-31-6P  
354133-33-8P 354133-35-0P 354133-37-2P  
354133-39-4P 354133-41-8P 354135-03-8P 354135-05-0P  
354135-07-2P 354135-09-4P 354135-11-8P  
354135-13-0P 354135-15-2P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- IT 354133-29-2P 354133-31-6P 354133-33-8P  
354133-35-0P 354133-37-2P 354135-05-0P  
354135-07-2P 354135-09-4P 354135-11-8P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene polymers having anionic and cationic groups for dispersing inorg. materials in water)
- RN 354133-29-2 HCAPLUS
- CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,



chloride, polymer with 2,5-furandione,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)-  
 $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid, graft,  
 sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 354133-28-1

CMF (C9 H18 N O2 . C4 H2 O3 . C3 H4 O2 . (C2 H4 O)n C5 H8 O2 . Cl)x

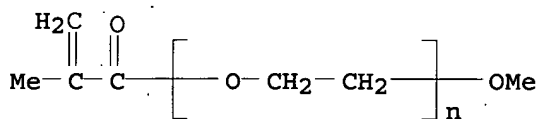
CCI PMS

CM 2

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

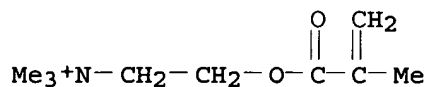
CCI PMS



CM 3

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

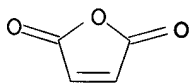


● Cl<sup>-</sup>

CM 4

CRN 108-31-6

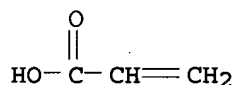
CMF C4 H2 O3



CM 5

CRN 79-10-7

CMF C3 H4 O2



RN 354133-31-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), 2-propenoic acid and sodium 4-ethenylbenzenesulfonate, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 354133-30-5

CMF (C9 H18 N O2 . C8 H8 O3 S . C3 H4 O2 . (C2 H4 O)n C5 H8 O2 . Cl . Na)x

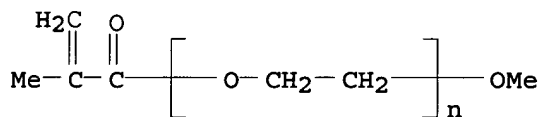
CCI PMS

CM 2

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

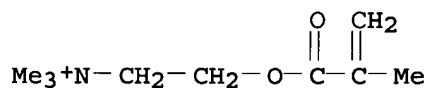
CCI PMS



CM 3

CRN 5039-78-1

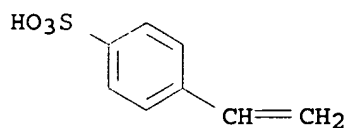
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 4

CRN 2695-37-6

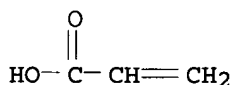
CMF C8 H8 O3 S . Na



● Na

CM 5

CRN 79-10-7  
CMF C3 H4 O2



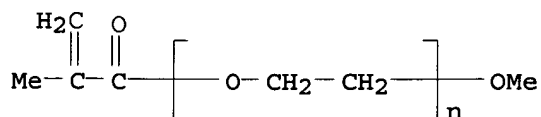
RN 354133-33-8 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), 2-(phosphonooxy)ethyl 2-methyl-2-propenoate and 2-propenoic acid, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 354133-32-7  
CMF (C9 H18 N O2 . C6 H11 O6 P . C3 H4 O2 . (C2 H4 O)n C5 H8 O2 . Cl)x  
CCI PMS

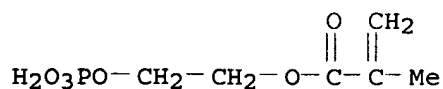
CM 2

CRN 26915-72-0  
CMF (C2 H4 O)n C5 H8 O2  
CCI PMS



CM 3

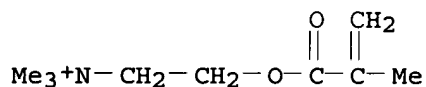
CRN 24599-21-1  
CMF C6 H11 O6 P



CM 4

CRN 5039-78-1

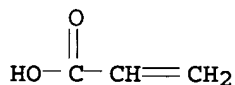
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 5

CRN 79-10-7

CMF C3 H4 O2



RN 354133-35-0 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 354133-34-9

CMF (C9 H18 N O2 . C3 H4 O2 . (C2 H4 O)<sub>n</sub> C5 H8 O2 . Cl)<sub>x</sub>

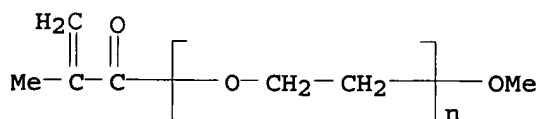
CCI PMS

CM 2

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

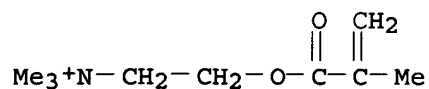
CCI PMS



CM 3

CRN 5039-78-1

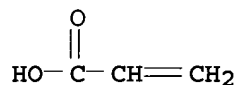
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 354133-37-2 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), 2-propenoic acid and α-2-propenyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 354133-36-1

CMF (C9 H18 N O2 . C3 H4 O2 . (C2 H4 O)n C5 H8 O2 . (C2 H4 O)n C3 H6 O . Cl)x

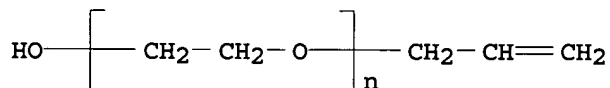
CCI PMS

CM 2

CRN 27274-31-3

CMF (C2 H4 O)n C3 H6 O

CCI PMS

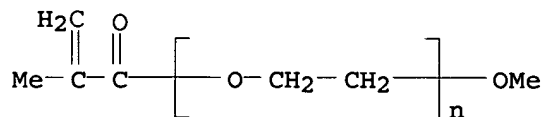


CM 3

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

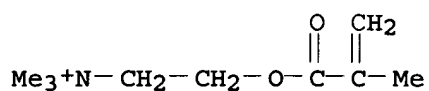
CCI PMS



CM 4

CRN 5039-78-1

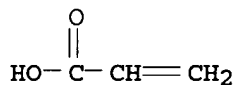
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 5

CRN 79-10-7

CMF C3 H4 O2



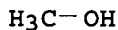
RN 354135-05-0 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2,5-furandione, oxirane and 2-propenoic acid, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O



CM 2

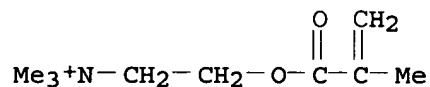
CRN 354135-04-9

CMF (C9 H18 N O2 . C4 H2 O3 . C3 H4 O2 . C2 H4 O . Cl)x

CCI PMS

CM 3

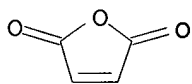
CRN 5039-78-1  
CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

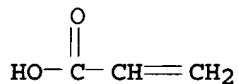
CM 4

CRN 108-31-6  
CMF C4 H2 O3



CM 5

CRN 79-10-7  
CMF C3 H4 O2



CM 6

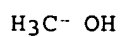
CRN 75-21-8  
CMF C2 H4 O



RN 354135-07-2 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, 2-propenoic acid and sodium 4-ethenylbenzenesulfonate, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O



CM 2

CRN 354135-06-1

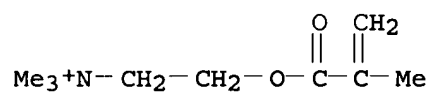
CMF (C9 H18 N O2 . C8 H8 O3 S . C3 H4 O2 . C2 H4 O . Cl . Na)x

CCI PMS

CM 3

CRN 5039-78-1

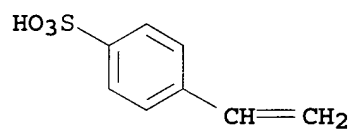
CMF C9 H18 N O2 . Cl

● Cl<sup>-</sup>

CM 4

CRN 2695-37-6

CMF C8 H8 O3 S . Na

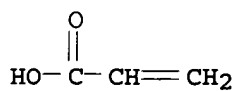


● Na

CM 5

CRN 79-10-7

CMF C3 H4 O2



CM 6



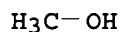
CRN 75-21-8  
CMF C2 H4 O



RN 354135-09-4 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, 2-(phosphonooxy)ethyl 2-methyl-2-propenoate and 2-propenoic acid, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O

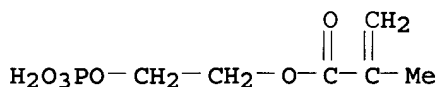


CM 2

CRN 354135-08-3  
CMF (C9 H18 N O2 . C6 H11 O6 P . C3 H4 O2 . C2 H4 O . Cl)x  
CCI PMS

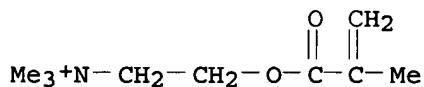
CM 3

CRN 24599-21-1  
CMF C6 H11 O6 P



CM 4

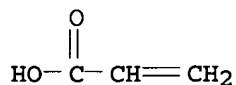
CRN 5039-78-1  
CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

CM 5

CRN 79-10-7  
CMF C3 H4 O2



CM 6

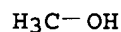
CRN 75-21-8  
CMF C2 H4 O



RN 354135-11-8 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane and 2-propenoic acid, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O

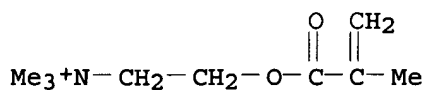


CM 2

CRN 354135-10-7  
CMF (C9 H18 N O2 . C3 H4 O2 . C2 H4 O . Cl)x  
CCI PMS

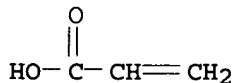
CM 3

CRN 5039-78-1  
CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

CM 4

CRN 79-10-7  
CMF C3 H4 O2

CM 5

CRN 75-21-8  
CMF C2 H4 O

L51 ANSWER 13 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:388760 HCAPLUS

DN 135:9080

TI Cement-based **hydraulic** compositions containing polyalkylene glycol-polycarboxylic acid dispersing agents

IN Hayashi, Hiroshi; Tsukada, Kazuhisa; Isomura, Nobutaka; Soeda, Koichi

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001146455	A2	20010529	JP 1999-323495	19991115
PRAI	JP 1999-323495		19991115		

AB The compns. contain (A) powdered dispersing agents prepared by adding reductive inorg. compds. and reductive organic compds. in liqs. containing polycarboxylic acid-type polymers having polyalkylene glycol chains as the principal components, followed with drying and powdering, and (B) cements prepared from incinerator ashes of municipal wastes and/or sewage sludges. B may contain limes and fired materials containing 10-40 parts C11A7CaCl2 (11CaO.7Al2O3.CaCl2), C11A7CaF2 (11CaO.7Al2O3.CaF2), and/or C3A, C2S and/or C3S. After mixing with water, the compns. still have enough fluidity for construction without sacrificing rapid curing and rapid hardening.

IC ICM C04B028-02

ICS C04B007-28; C04B022-14; C04B024-26; C04B103-40

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38, 60

ST cement polyalkylene glycol polycarboxylic acid dispersing agent; gelation inhibitor polycarboxylic acid cement dispersing agent; municipal waste incinerator ash cement fluidity; sewage sludge incinerator ash cement fluidity; incinerator ash cement fluidity dispersing agent

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)

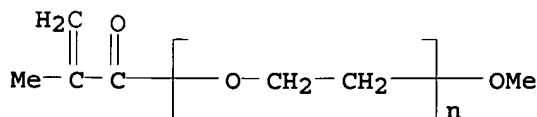
- (acrylic, graft; cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT Cement (construction material)  
Dispersing agents  
(cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT Ashes (residues)  
(incinerator, cement raw materials, from municipal wastes and/or sewage sludges; cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT 12254-31-8, C11A7CaF2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C11A7CaF2, cement components; cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT 10034-77-2, C2S 12042-78-3, C3A 12043-73-1, Aluminum calcium chloride oxide (Al7Ca6ClO16) 12168-85-3, C3S 13397-24-5, gypsum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cement components; cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT 152383-38-5P, Methoxypolyethylene glycol methacrylate-methyl acrylate-sodium methacrylate-sodium methallylsulfonate graft copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT 102-71-6, Triethanolamine, uses 7757-83-7, Sodium sulfite  
RL: MOA (Modifier or additive use); USES (Uses)  
(gelation inhibitors; cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- IT 152383-38-5P, Methoxypolyethylene glycol methacrylate-methyl acrylate-sodium methacrylate-sodium methallylsulfonate graft copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(cement-based **hydraulic** compns. containing polyalkylene glycol-polycarboxylic acid dispersing agents)
- RN 152383-38-5 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

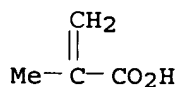
CCI PMS



CM 2

CRN 5536-61-8

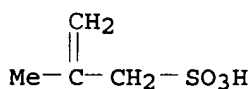
CMF C4 H6 O2 . Na



● Na

CM 3

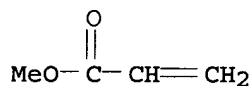
CRN 1561-92-8  
 CMF C4 H8 O3 S . Na



● Na

CM 4

CRN 96-33-3  
 CMF C4 H6 O2



L51 ANSWER 14 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:260180 HCAPLUS

DN 134:284753

TI Polymer-modified **hydraulic** cement mixes for concrete with improved surface

IN Hamada, Daisuke; Yamato, Fujio; Mizunuma, Tatsuya; Ichikawa, Hiroaki

PA Kao Corp., Japan

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10048139	A1	20010412	DE 2000-10048139	20000928
	JP 2001106559	A2	20010417	JP 1999-285905	19991006
	JP 3436901	B2	20030818		
PRAI	JP 1999-285905	A	19991006		

AB The mixes of **hydraulic** binder can decrease rough blisters with a certain content of caught air, whereby a hardened product will be obtained such as concrete with an excellent appearance of the surface and an

excellent storage stability. The mixes contain (a) a polymer or a copolymer manufactured by polymerizing a polyoxyalkylene group-containing unsatd. carbonic acid on Et basis with (Meth)allylalc. or its derivative, (b) a mixture with specific oxyalkylene compound (1)  $R_1COO(EO)n_1(PO)m_1H$ , (2)  $R_2COO(EO)n_2(PO)m_2OCR_3$ , and (3)  $R_4O(EO)n_3(PO)m_3H$  whereby  $R_1$ ,  $R_2$ , and  $R_3$  are  $HC1-22$ ,  $R_4$  is  $C1-22$  or hydrogen atom,  $n_1 = 0-100$ ,  $n_2 = 1-100$ ,  $n_3 = 1-100$ ,  $m_1$ ,  $m_2$ , and  $m_3 = 1-100$ ,  $EO$  is ethylene-oxide group, and  $PO$  is propylene-oxide group, and (c) portland cement and fly ash. Sand and crushed stone can be also added to the mixes as aggregates.

ICM C04B024-26  
ICS C04B024-04

CC 58-3 (Cement, Concrete, and Related Building Materials)

ST polymer cement fly ash mortar concrete

IT Ashes (residues)  
(fly, polymer cement component; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT Cement (construction material)  
(portland, polymer cement component; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT Aminoplasts  
RL: MOA (Modifier or additive use); USES (Uses)  
(superplasticizer; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT Concrete  
(with polymer cement; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT 95410-90-5 108739-17-9 **124934-10-7** 164787-81-9  
333310-40-0, Polyoxyethylene allyl methyl ether-polyoxyethylene diallyl ether-sodium maleate copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(polymer modifier; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT 9003-08-1 9017-33-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(superplasticizer; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

IT **124934-10-7**  
RL: MOA (Modifier or additive use); USES (Uses)  
(polymer modifier; polymer-modified **hydraulic** cement mixes for concrete with improved surface)

RN 124934-10-7 HCAPLUS

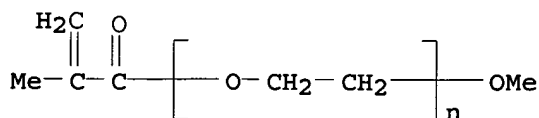
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX NAME)

CM 1

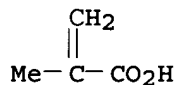
CRN 26915-72-0

CMF (C2 H4 O) $_n$  C5 H8 O2

CCI PMS

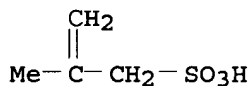


CM 2

CRN 5536-61-8  
CMF C4 H6 O2 . Na

● Na

CM 3

CRN 1561-92-8  
CMF C4 H8 O3 S . Na

● Na

L51 ANSWER 15 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:454312 HCAPLUS

DN 133:93561

TI Manufacture of freeze/thaw resistant **cementitious** adhesive  
modified with acrylamide polymers for composite materials

IN Lucero, Richard F.; Davis, Bruce

PA USA

SO U.S., 10 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>US 6084011</u>	A	20000704	US 1997-920740	19970829
PRAI	US 1997-920740		19970829		

AB A **cementitious** pastes capable of setting after an interval of time comprise (1) a mixture of a fines component selected from **cement** and a blend of **cement** and pozzolanic material (e.g., fly ash) 0.8-80 weight% and (2) water 1.6-20 weight% with a water soluble polymer 0.004-0.134 weight%, preferably 0.008 weight% (based on the mixture weight) that is capable of taking up and releasing water when incorporated into the mixture. The polymer is selected from acrylamide homopolymers, acrylamide copolymers, and combination thereof. A non-foamed **cementitious** compns. are also provided to form a substantially homogeneous, pervious rigid mass that comprises a substantially surfactant-free mixture of the fines component, inert aggregate particles, water, and the water-soluble polymer that is capable of adhesion to the

aggregate particles. The aggregate is selected from recycled glass, crushed glass, crushed rocks, crushed ceramics, mine tailings, coal ash, perlite, pumice, shredded or chopped rubber, corn husks, sea shells, wood chips, cork, charcoal, polystyrene, polyurethane, and mixture thereof. The fines component, water, aggregate, and the polymer have proportions with respect to one another and together sufficient in an absence of surfactant to form a substantially uniform adhesive coating on the aggregate particles such that, upon setting, the aggregate particles are bonded to one another at contact areas thereof. The method of forming a substantially homogeneous, pervious **cementitious** rigid body includes (1) forming a mixture, (2) mixing the mixture in an absence of any foamed surfactant, (3) flowing the slurry as a cohesive mass, and (4) setting in the form. The method of forming a substantially homogeneous, pervious **cementitious** rigid body includes (1) forming a mixture, (2) mixing the mixture in an absence of any foamed surfactant, (3) flowing the slurry as a cohesive mass, and (4) setting in the form.

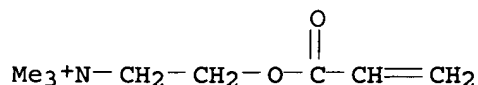
- IC ICM C08K003-34
- ICS C04B024-26; C08L033-26
- INCL 524005000
- CC 58-3 (**Cement**, Concrete, and Related Building Materials)  
Section cross-reference(s): 38
- ST freeze thaw resistant **cementitious** adhesive composite concrete
- IT Adhesives  
(**cementitious**, freeze/thaw resistant; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Wood  
(chips, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Ashes (residues)  
(coal, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Cork  
(concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Charcoal  
Perlite  
Pumice  
RL: MOA (Modifier or additive use); USES (Uses)  
(concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Composites  
(concrete-based; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Recycling  
(fly ash, glass, mine tailings, coal ash, rubber; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Ashes (residues)  
(fly, **cementitious** binder with; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Concrete  
(freeze/thaw resistant; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Seed  
(hull, corn, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT **Cement** (construction material)



- (paste, binder; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Polyurethanes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (recycled, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Ceramics  
 (recycled, crushed; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Glass, uses  
 Rocks  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (recycled, crushed; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Shell  
 (sea, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Rubber, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (shredded or chopped, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Solid wastes  
 (tailings, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT Polymers, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (water-soluble, acrylamide polymers; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT 56833-55-7, Percol 292 68562-86-7, Percol 156 **69418-26-4**,  
 Percol 455 76544-18-8, Percol 351 106946-89-8, Percol E10  
 281660-30-8, Percol Polyhall 1001 281660-38-6, Floerger EM 230  
 281660-44-4, Floerger FA 920N 281660-47-7, Floerger FA 920SH  
 281660-53-5, Floerger FA 920VHM 281661-59-4, Polyhall 1320  
 281661-72-1, Percol 511 281664-38-8, 737HL 281664-39-9, 211L  
 281664-42-4, Pamak WD  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT 9003-53-6, Polystyrene  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (recycled, concrete aggregate; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT 79-06-1D, Acrylamide, copolymer 9003-05-8D, Acrylamide homopolymer, hydrolyzed  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (superplasticizer; freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- IT **69418-26-4**, Percol 455  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (freeze/thaw resistant **cementitious** adhesive modified with acrylamide polymers for composite materials)
- RN **69418-26-4** HCAPLUS
- CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

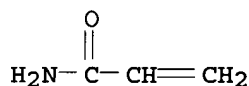
CM 1

CRN 44992-01-0  
 CMF C8 H16 N O2 . Cl

● Cl<sup>-</sup>

CM 2

CRN 79-06-1  
 CMF C3 H5 N O



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 16 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2000:105149 HCAPLUS  
 DN 132:155666  
 TI Polymer additives for **hydraulic** compositions  
 IN Hamata, Daisuke; Daita, Kyoichi; Yamato, Fujio  
 PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000044309	A2	20000215	JP 1998-215464	19980730
PRAI	JP 1998-215464		19980730		

OS MARPAT 132:155666

AB The title additives contain (A) vinyl polymers containing C2-3 oxyalkylene groups and having number average mol. weight 500-500,000 and (B) cationic compds. having quaternary N atoms. **Hydraulic** compns. containing A, B, and fine aggregates are also claimed. Thus, a mortar was prepared by mixing cement, sand, and an aqueous mixture containing methoxypolyethylene glycol monomethacrylate-Na acrylate copolymer and cetyltrimethylammonium chloride, which showed good flowability and workability.

IC ICM C04B024-26

ICS C04B024-12; C04B103-30

CC 58-2 (**Cement**, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38

ST vinyl polymer quaternary ammonium compd additive mortar  
 IT Mortar

(additives containing vinyl polymers and quaternary N cationic compds. for cement mortar)

IT Quaternary ammonium compounds, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (additives containing vinyl polymers and quaternary N cationic compds. for cement mortar)

IT 112-00-5, Lauryltrimethylammonium chloride 112-02-7,  
 Cetyltrimethylammonium chloride 112-03-8, Stearyltrimethylammonium chloride 506-59-2D, Dimethylammonium chloride, alkyl derivs. 1875-92-9D, Benzyldimethylammonium chloride, alkyl derivs. 7173-51-5, Didecyldimethylammonium chloride 28724-32-5 95410-90-5, Methoxypolyethylene glycol monomethacrylate-sodium methacrylate copolymer 108739-17-9 124934-10-7 164787-81-9 258350-56-0 258350-59-3  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (additives containing vinyl polymers and quaternary N cationic compds. for cement mortar)

IT 124934-10-7  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (additives containing vinyl polymers and quaternary N cationic compds. for cement mortar)

RN 124934-10-7 HCAPLUS

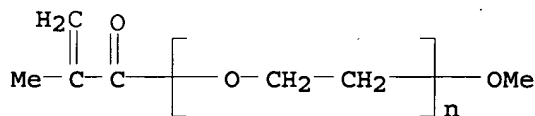
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

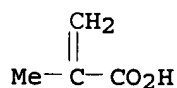
CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

CCI PMS



CM 2

CRN 5536-61-8  
 CMF C4 H6 O2 . Na

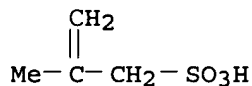


● Na

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na



● Na

L51 ANSWER 17 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:79082 HCAPLUS

DN 132:126687

TI **Hydraulic** cement compositions containing polycarboxylic acid-based powdery dispersing agents

IN Hayashi, Hiroshi; Tsukada, Kazuhisa; Isomura, Hirotaka; Soeta, Koichi

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000034157	A2	20000202	JP 1998-204783	19980721
PRAI	JP 1998-204783		19980721		

AB The title cement compns. comprise municipal garbage incineration ash- or sewage incineration ash-derived cement and (A) powdery dispersing agents obtained by drying aqueous mixts. containing polycarboxylic acid-type polymers having repeating units  $\text{CH}_2\text{CR}_1(\text{CO}_2\text{M})$  and  $\text{CH}_2\text{CR}_2\text{Y}(\text{CH}_2\text{CR}_3\text{HO})_n\text{R}_4$  ( $\text{R}_1\text{-R}_3 = \text{H}$ ,  $\text{Me}$ ;  $\text{R}_4 = \text{C}_1\text{-3 alkyl}$ ;  $\text{M} = \text{H}$ , alkali metal, alkaline earth metal,  $\text{NH}_4^+$ , organic amine;  $\text{Y} = \text{CH}_2\text{O}$ ,  $\text{CO}_2$ ;  $n = 20\text{-}109$ ) or (B) powdery dispersing agents containing polyalkylene glycol-containing polycarboxylic acid-type polymers, polyalkylene glycols, and  $\text{C}_8\text{-}22$  fatty acids. The compns. show good fluidity and rapid hardenability.

IC ICM C04B028-02

ICS B01F017-36; B09B003-00; C04B024-26; C08F290-06; C09D133-02; C09D155-00; C04B028-02; C04B007-28; C04B103-40

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 60

ST polycarboxylic acid dispersing agent incineration ash cement; polyoxyalkylene polycarboxylic acid cement dispersing agent; fatty acid dispersing agent ash cement

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(additives; incinerator ash-derived cement compns. containing polycarboxylic acid-based powdery dispersing agents)

IT Cement (construction material)

Dispersing agents

(incinerator ash-derived cement compns. containing polycarboxylic acid-based powdery dispersing agents)

IT Carboxylic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)

(incinerator ash-derived cement compns. containing polycarboxylic acid-based powdery dispersing agents)

IT 1592-23-0, Calcium stearate 25322-68-3 152383-38-5  
256452-49-0

RL: MOA (Modifier or additive use); USES (Uses)

(additives; incinerator ash-derived **cement** compns. containing polycarboxylic acid-based powdery dispersing agents)

IT 10034-77-2, C2S Cement component 12042-78-3, C3A Cement component  
12043-73-1, Aluminum calcium chloride oxide (Al7Ca6ClO16) 12168-85-3,  
C3S Cement component 13397-24-5, Gypsum, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(incinerator ash-derived cement compns. containing polycarboxylic acid-based powdery dispersing agents)

IT 152383-38-5 256452-49-0

RL: MOA (Modifier or additive use); USES (Uses)

(additives; incinerator ash-derived **cement** compns. containing polycarboxylic acid-based powdery dispersing agents)

RN 152383-38-5 HCAPLUS

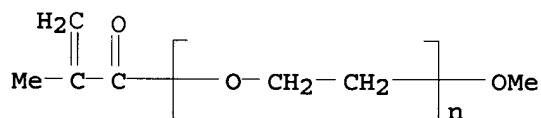
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

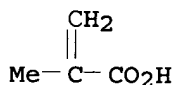
CCI PMS



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na

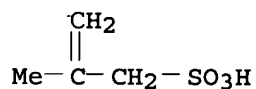


● Na

CM 3

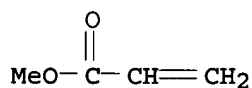
CRN 1561-92-8

CMF C4 H8 O3 S . Na



● Na

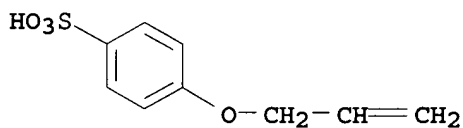
CM 4

CRN 96-33-3  
CMF C4 H6 O2

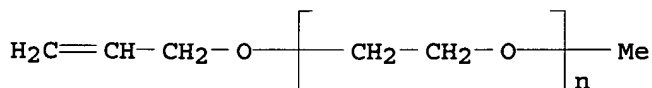
RN 256452-49-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), methyl 2-propenoate,  $\alpha$ -methyl- $\omega$ -(2-propenyloxy)poly(oxy-1,2-ethanediyl), 4-(2-propenyloxy)benzenesulfonic acid and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 46331-29-7  
CMF C9 H10 O4 S

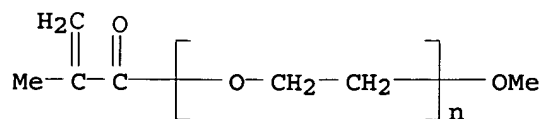
CM 2

CRN 27252-80-8  
CMF (C2 H4 O)<sub>n</sub> C4 H8 O  
CCI PMS

CM 3

CRN 26915-72-0  
CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

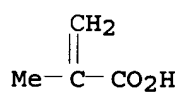
CCI PMS



CM 4

CRN 5536-61-8

CMF C4 H6 O2 . Na

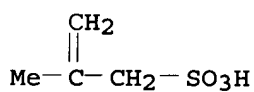


● Na

CM 5

CRN 1561-92-8

CMF C4 H8 O3 S . Na

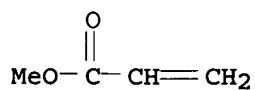


● Na

CM 6

CRN 96-33-3

CMF C4 H6 O2



L51 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:59064 HCAPLUS

DN 132:126677

TI Chemical admixtures and their use in manufacture of **hydraulic**  
compositions for bleeding prevention

IN Yamato, Fujio

PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000026144	A2	20000125	JP 1998-210471	19980708
PRAI	JP 1998-210471		19980708		

AB The admixts. contain 100:(60-150) (by weight) mixts. of (A) copolymers from R1CH:CR2(CH2)m1CO2(AO)nX and CR3R5:CR4CO2M1 and/or CH2:CR6CH2SO3Y [R1, R2, R6 = H, Me; R3-R5 = H, Me, (CH2)m2, CO2M2; M1, M2, Y = H, cation; m1, m2 = 0-2; AO = C2-3 oxyalkylene; n = 30-300; X = H, C1-3 alkyl] and (B) C4-10 hydroxycarboxylic acids (salts). Hydraulic compns. are mixed with the admixts. to give compns. with unit cement content  $\leq 300$  kg/m3. The compns. prevent bleeding to give the products with low cement content and good appearance.

IC ICM C04B024-26  
 ICS C04B024-26; C04B024-06; C04B103-30; C04B103-44

CC 58-1 (Cement, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38

ST cement admixt acrylic polyoxyalkylene hydroxycarboxylate; bleeding prevention cement acrylic polyoxyalkylene hydroxycarboxylate

IT Polyoxyalkylenes, preparation  
 RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
 (acrylic, graft; cement admixts. containing acrylic polyoxyalkylenes and hydroxycarboxylates for bleeding prevention)

IT Cement (construction material)  
 Concrete  
 (cement admixts. containing acrylic polyoxyalkylenes and hydroxycarboxylates for bleeding prevention)

IT Carboxylic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (hydroxy; cement admixts. containing acrylic polyoxyalkylenes and hydroxycarboxylates for bleeding prevention)

IT Cement (construction material)  
 (portland; cement admixts. containing acrylic polyoxyalkylenes and hydroxycarboxylates for bleeding prevention)

IT 526-95-4, Gluconic acid 527-07-1, Sodium gluconate 676-46-0, Sodium malate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (cement admixts. containing acrylic polyoxyalkylenes and hydroxycarboxylates for bleeding prevention)

IT 109326-81-0P, Acrylic acid-polyethylene glycol methyl ether acrylate graft copolymer sodium salt 221881-27-2P, Methacrylic acid-polyethylene glycol methyl ether methacrylate graft copolymer sodium salt 221882-30-0P, Ethylene oxide-methacrylic acid graft copolymer methyl ether sodium salt 256330-76-4P, Acrylic acid-ethylene oxide-monosodium maleate-propylene oxide graft copolymer sodium salt 256330-77-5P, Acrylic acid-ethylene oxide-methacrylic acid-propylene oxide block graft copolymer sodium salt 256330-77-5P, Ethylene oxide-propylene oxide block copolymer monoacrylate-methacrylic acid graft copolymer sodium salt 256330-79-7P, Acrylic acid-polyethylene glycol methyl ether acrylate-sodium methallylsulfonate graft copolymer sodium salt 256335-43-0P, Acrylic acid-ethylene oxide graft copolymer methyl ether sodium salt 256335-45-2P, Acrylic acid-ethylene oxide-sodium methallylsulfonate graft copolymer methyl ether sodium salt 256335-48-5P, Ethylene oxide-propylene oxide copolymer



monoacrylate-monosodium maleate graft copolymer sodium salt  
 RL: MOA (Modifier or additive use); PNU (Preparation,  
 unclassified); PREP (Preparation); USES (Uses)

(cement admixts. containing acrylic polyoxyalkylenes and  
 hydroxycarboxylates for bleeding prevention)

IT 256330-79-7P, Acrylic acid-polyethylene glycol methyl ether  
 acrylate-sodium methallylsulfonate graft copolymer sodium salt

256335-45-2P, Acrylic acid-ethylene oxide-sodium  
 methallylsulfonate graft copolymer methyl ether sodium salt  
 RL: MOA (Modifier or additive use); PNU (Preparation,  
 unclassified); PREP (Preparation); USES (Uses)

(cement admixts. containing acrylic polyoxyalkylenes and  
 hydroxycarboxylates for bleeding prevention)

RN 256330-79-7 HCAPLUS

CN 2-Propenoic acid, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -  
 methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate,  
 graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 256330-78-6

CMF (C4 H8 O3 S . C3 H4 O2 . (C2 H4 O)n C4 H6 O2 . Na)x

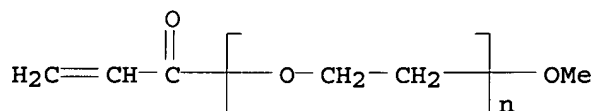
CCI PMS

CM 2

CRN 32171-39-4

CMF (C2 H4 O)n C4 H6 O2

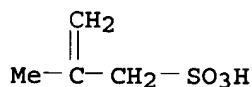
CCI PMS



CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na

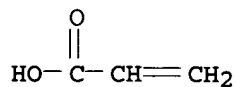


● Na

CM 4

CRN 79-10-7

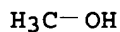
CMF C3 H4 O2



RN 256335-45-2 HCAPLUS  
 CN 2-Propenoic acid, polymer with oxirane and sodium 2-methyl-2-propene-1-sulfonate, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
 CMF C H4 O

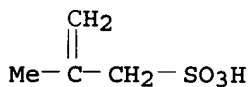


CM 2

CRN 197646-59-6  
 CMF (C4 H8 O3 S . C3 H4 O2 . C2 H4 O . Na)x  
 CCI PMS

CM 3

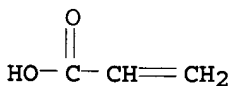
CRN 1561-92-8  
 CMF C4 H8 O3 S . Na



● Na

CM 4

CRN 79-10-7  
 CMF C3 H4 O2



CM 5

CRN 75-21-8  
 CMF C2 H4 O



L51 ANSWER 19 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:548727 HCAPLUS  
DN 131:275697  
TI Synthesis of calcium silicate hydrate/polymer complexes: Part II. Cationic  
polymers and complex formation with different polymers  
AU Matsuyama, Hiroyoshi; Young, J. Francis  
CS Center for Advanced Cement-Based Materials University of Illinois at  
Urbana-Champaign, Urbana, IL, 61801, USA  
SO Journal of Materials Research (1999), 14(8), 3389-3396  
CODEN: JMREEE; ISSN: 0884-2914  
PB Materials Research Society  
DT Journal  
LA English  
AB Some high mol. weight cationic polymers, poly(diallyldimethylammonium  
chloride) (PDC) and poly(4-vinylbenzyltrimethylammonium chloride) (PVC),  
have been incorporated into the calcium silicate hydrate (C-S-H) structure  
during precipitation of quasi-crystalline C-S-H from aqueous solution Expansion of the  
interlayer spacing [0.9 nm (PDC), 1.5 nm (PVC)] and a high-carbon content  
provided evidence that these polymers were intercalated between layers of  
C-S-H when Ca/Si <1.0. Intercalation characteristic properties strongly  
depended on both of the type of polymer and Ca/Si ratio in C-S-H.  
Poly(4-vinyl-1-methylpyridinium bromide) and Me glycol chitosan (iodide)  
also interacted with C-S-H, probably by surface adsorption. The  
C-S-H/polymer complexes were examined by Fourier transform IR spectroscopy,  
29Si NMR magic angle spinning, and 13C cross-polarization, magic angle  
spinning NMR spectroscopy. Mechanisms of intercalation of different kinds  
of polymers between the C-S-H layers are discussed.  
CC 58-1 (Cement, Concrete, and Related Building Materials)  
Section cross-reference(s): 38  
ST intercalation calcium silicate hydrate cationic polymer; calcium silicate  
hydrate complex cationic polymer  
IT Counterions  
(bromide/iodide; synthesis of calcium silicate hydrate intercalation  
products with cationic polymers)  
IT Intercalation compounds  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(calcium silicate hydrate-cationic polymer; synthesis of calcium  
silicate hydrate intercalation products with cationic polymers)  
IT Cement (construction material)  
(portland; synthesis of calcium silicate hydrate intercalation products  
with cationic polymers)  
IT Intercalation  
(synthesis of calcium silicate hydrate intercalation products with  
cationic polymers)  
IT 20461-54-5, Iodide, uses 24959-67-9, Bromide, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(counterion; synthesis of calcium silicate hydrate intercalation  
products with cationic polymers)  
IT 26161-33-1, Poly(2-methacryloxyethyltrimethylammonium chloride)  
28728-55-4, Hexadimethrine bromide 62962-69-0 88650-88-8, Methyl  
glycol chitosan  
RL: MOA (Modifier or additive use); USES (Uses)  
(interaction of cationic polymers with calcium silicate hydrate)  
IT 1344-96-3D, intercalation products with cationic polymers

RL: MOA (Modifier or additive use); USES (Uses)

(synthesis of calcium silicate hydrate intercalation products with cationic polymers)

IT 26062-79-3DP, Poly(diallyldimethylammonium chloride), intercalation products with calcium silicate hydrate 37955-87-6DP, intercalation products with calcium silicate hydrate

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of calcium silicate hydrate intercalation products with cationic polymers)

IT 26161-33-1, Poly(2-methacryloxyethyltrimethylammonium chloride)

RL: MOA (Modifier or additive use); USES (Uses)

(interaction of cationic polymers with calcium silicate hydrate)

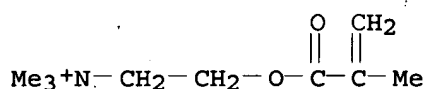
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 20 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:530754 HCAPLUS

DN 131:188738

TI Cement fillers comprising incinerator ash

IN Ogawa, Akikazu; Ono, Yoshinori

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11228197	A2	19990824	JP 1998-50195	19980216
PRAI	JP 1998-50195		19980216		

AB The fillers comprise **hydraulic** compns. consisting of gypsum and fired products of municipal waste incinerator ash and/or wastewater treatment sludge incinerator ash containing C2S and/or C3S and 10-40 weight% C11A7CaCl2, C11A7CaF2, and/or C3A. The fillers show high initial strength and are suitable as back filling concrete and grout.

IC ICM C04B007-28

ICS C04B007-345; C04B028-02; C04B018-08; C04B018-14

CC 58-3 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 60

ST municipal waste incinerator ash cement filler; wastewater sludge

incinerator ash cement filler; incinerator ash cement filler grout;  
calcium aluminate fluoride cement filler; chloride calcium aluminate  
cement filler

IT Ashes (residues)  
(aluminum; cement fillers comprising incinerator ash for back filling  
cement and grout)

IT Slags  
(blast-furnace; cement fillers comprising incinerator ash for back  
filling cement and grout)

IT Cement (construction material)  
Grout  
Recycling  
Wastewater treatment sludge  
(cement fillers comprising incinerator ash for back filling cement and  
grout)

IT Clays, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cement fillers comprising incinerator ash for back filling cement and  
grout)

IT Ashes (residues)  
(incinerator fly; cement fillers comprising incinerator ash for back  
filling cement and grout)

IT Ashes (residues)  
(incinerator; cement fillers comprising incinerator ash for back  
filling cement and grout)

IT Wastewater  
(municipal; cement fillers comprising incinerator ash for back filling  
cement and grout)

IT Concrete modifiers  
(water-reducing agents; cement fillers comprising incinerator ash for  
back filling cement and grout)

IT 7429-90-5, Aluminum, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(cement fillers comprising incinerator ash for back filling cement and  
grout)

IT 10034-77-2, C2S 12042-78-3, C3A 12043-73-1, Aluminum calcium chloride  
oxide (Al7Ca6ClO16) 12168-85-3, C3S 12254-31-8, Calcium aluminate  
fluoride (11CaO.7Al2O3.CaF2) 13397-24-5, Gypsum, uses 14542-23-5,  
Fluorite, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cement fillers comprising incinerator ash for back filling cement and  
grout)

IT 9017-33-8 240138-03-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(water-reducing agent; cement fillers comprising incinerator  
ash for back filling cement and grout)

IT 240138-03-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(water-reducing agent; cement fillers comprising incinerator  
ash for back filling cement and grout)

RN 240138-03-8 HCAPLUS

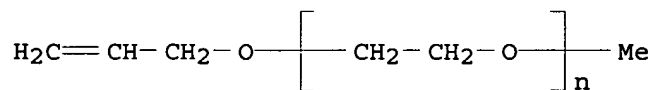
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with methyl  
2-propenoate,  $\alpha$ -methyl- $\omega$ -(2-propenyloxy)poly(oxy-1,2-  
ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX  
NAME)

CM 1

CRN 27252-80-8

CMF (C2 H4 O)n C4 H8 O

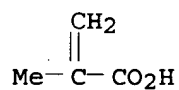
CCI PMS



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na

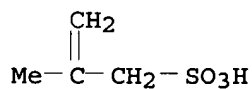


● Na

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na

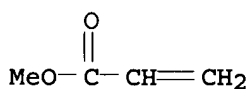


● Na

CM 4

CRN 96-33-3

CMF C4 H6 O2



L51 ANSWER 21 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:498155 HCAPLUS  
 DN 131:173863  
 TI Rapid-hardening cement compositions containing polycarboxylic acids  
 IN Hosokawa, Keijii; Hayashi, Hiroshi; Soeda, Koichi  
 PA Taiheiyo Cement Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent  
 LA Japanese  
 FAN.CNT 1

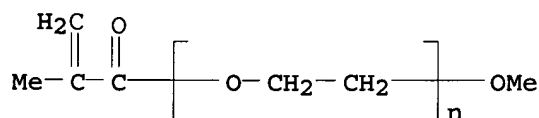
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11217250	A2	19990810	JP 1998-30633	19980127
PRAI	JP 1998-30633		19980127		
AB	The title compns. comprise <b>hydraulic</b> substances containing Ca aluminates having CaO/Al <sub>2</sub> O <sub>3</sub> mol ratio 0.5-4.0 and cement dispersants containing polycarboxylic acid-type polymers. The cement compns. have good flowability.				
IC	ICM C04B024-26				
	ICS C04B024-26; C04B028-06; C04B103-14; C04B103-30				
CC	58-1 ( <b>Cement</b> , Concrete, and Related Building Materials) Section cross-reference(s): 38				
ST	polycarboxylic acid polymer dispersant cement flowability; calcium aluminate cement rapid hardening dispersant				
IT	Cement (construction material) Dispersing agents (rapid-hardening cement compns. containing polycarboxylic acids-type polymers for flowability)				
IT	<b>238735-80-3 238737-36-5</b> RL: MOA ( <b>Modifier or additive use</b> ); USES (Uses) (dispersants; rapid-hardening <b>cement</b> compns. containing polycarboxylic acids-type polymers for flowability)				
IT	12005-25-3, Aluminum calcium oxide sulfate (Al <sub>6</sub> Ca <sub>4</sub> O <sub>12</sub> (SO <sub>4</sub> )) RL: TEM (Technical or engineered material use); USES (Uses) (rapid-hardening cement compns. containing polycarboxylic acids-type polymers for flowability)				
IT	<b>238735-80-3 238737-36-5</b> RL: MOA ( <b>Modifier or additive use</b> ); USES (Uses) (dispersants; rapid-hardening <b>cement</b> compns. containing polycarboxylic acids-type polymers for flowability)				
RN	238735-80-3 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, sodium salt, polymer with $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)				

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

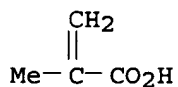
CCI PMS



CM 2

CRN 5536-61-8

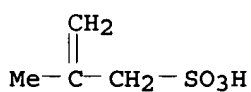
CMF C4 H6 O2 . Na



● Na

CM 3

CRN 1561-92-8  
CMF C4 H8 O3 S . Na

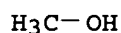


● Na

RN 238737-36-5 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with oxirane and sodium  
2-methyl-2-propene-1-sulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1  
CMF C H4 O

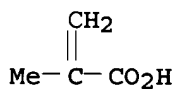


CM 2

CRN 238737-35-4  
CMF (C4 H8 O3 S . C4 H6 O2 . C2 H4 O . 2 Na)x  
CCI PMS

CM 3

CRN 5536-61-8  
CMF C4 H6 O2 . Na



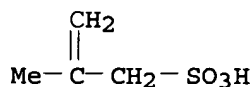
● Na



CM 4

CRN 1561-92-8

CMF C4 H8 O3 S . Na



● Na

CM 5

CRN 75-21-8

CMF C2 H4 O



L51 ANSWER 22 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:182483 HCAPLUS

DN 130:241133

TI Polymer additives for **cement** to improve strength

IN Hayashi, Tetsushi; Nagao, Masahiro; Sato, Sumiaki

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11071149	A2	19990316	JP 1997-229966	19970826
PRAI	JP 1997-229966		19970826		

AB The title additives comprise vinyl alc.-based polymers containing 0.1-45 mol% structural unit CHR1CHR2(R1, R2 = H or Me; X = COOH). Alternatively, claimed additives comprise above polymers, where X = CH2SO3H, CONHMe2CH2SO3H, CH2OH, CH2CH2OH, CH2OCH2CH(OH)CH2OH, CONH2, CONMe2, CH2NEt3Cl, or CONH(CH2)3NMe3Cl. Thus, copolymer comprising 4.4 mol% methacrylic acid unit and 95.6 mol% vinyl acetate unit was saponified to give modified poly(vinyl alc.) with saponification 99.6 mol%. An aqueous solution containing 10%

resulting modified poly(vinyl alc.) 300, **cement** 3000, 20% aqueous solution of superplasticizer 75, and water 570 g were mixed, shaped and cured at 20° to give a concrete having compressive strength at 7 and 28 days 56 and 70 N/mm2, resp., vs. 35 and 45 N/mm2 without addition of the above additive.

IC ICM C04B024-26

ICS C04B103-60

CC 58-1 (**Cement**, Concrete, and Related Building Materials)ST additive **cement** modified polyvinyl alc

IT **Cement** (construction material)  
(vinyl alc.-based polymer additives for **cement** to improve strength)

IT 24980-63-0D, Methacrylic acid-vinyl acetate copolymer, saponified  
79020-07-8D, saponified **83293-28-1D**, saponified 194421-47-1D,  
saponified  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl alc.-based polymer additives for **cement** to improve strength)

IT **83293-28-1D**, saponified  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl alc.-based polymer additives for **cement** to improve strength)

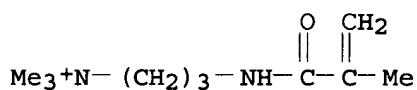
RN 83293-28-1 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-,  
chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 51410-72-1

CMF C10 H21 N2 O . Cl

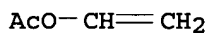


● Cl<sup>-</sup>

CM 2

CRN 108-05-4

CMF C4 H6 O2



L51 ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:665749 HCAPLUS

DN 129:305575

TI Resilient cement compositions and method for constructing and repairing  
oil and gas wells

IN Chatterji, Jiten; King, Bobby J.; Onan, Patty L.; Onan, David D.

PA Halliburton Energy Services, Inc., USA

SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 839,839.  
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5820670	A	19981013	US 1997-868223	19970603
	<del>US 5795924</del>	A	19980818	US 1997-839839	19970417

NO 9703046	A	19980102	NO 1997-3046	19970630
NO 9703047	A	19980102	NO 1997-3047	19970630
EP 816300	A2	19980107	EP 1997-304732	19970630
EP 816300	A3	19980121		
EP 816300	B1	20020327		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 816301	A2	19980107	EP 1997-304733	19970630
EP 816301	A3	19980114		
EP 816301	B1	20020424		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI US 1996-673987 B1 19960701  
 US 1997-839839 A2 19970417  
 US 1997-868223 A 19970603

AB The compns., having improved mech. properties including elasticity and ductility, comprise **hydraulic** cement, fumed SiO<sub>2</sub> 5-30 weight% (based on the cement), water in an amount sufficient to form a pumpable slurry, a gas present in an amount sufficient to foam the compns., an effective amount of a foaming agent, and an effective amount of a foam stabilizer. More specifically, the compns. contain portland cement, and (based on the cement) fumed SiO<sub>2</sub> 5-30 and water 22-95 weight%, a gas selected from air and N to foam the cement composition and produce a cement composition having d. 8-16 lb/gal, and (based on the water), a foaming agent consisting of the Na salt of  $\alpha$ -olefinic sulfonic acid 4-9.5, and a foam stabilizer consisting of cocoylamidopropylbetaine 2-5 weight%. The cement, capable of withstanding impacts, shocks, and movements of the cemented pipe, subsequently generated by drilling and other well operations, without cracking, shattering, or otherwise failing is used for cementing of well holes. More specifically, the compns. comprise portland cement, fumed SiO<sub>2</sub> 5-30 weight% (based on the cement), water 22-95 weight% (based on the cement), a gas selected from the group of air and N in an amount sufficient to produce a foamed composition having d. 8-16 lb/gal, and the foaming agent and the foam stabilizer.

IC ICM C04B038-10  
 ICS C04B014-04; C04B014-12; C04B014-26

INCL 106727000

CC 58-3 (**Cement**, Concrete, and Related Building Materials)  
 Section cross-reference(s): 51

ST portland cement pumpable slurry; well oil gas cementing fumed silica; foaming agent pumpable cement slurry; air nitrogen foaming cement; alkenesulfonic acid sodium salt foaming agent; foam stabilizer cocoylamidopropylbetaine cement

IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkene, sodium salts, foaming agents; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT Betaines  
 RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)  
 (cocoylamidopropylbetaines, foam stabilizers; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT Air  
 Gases  
 (foaming with; of pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT Dispersing agents  
 Foaming agents  
 (in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT Cement (construction material)  
(portland; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT Natural gas wells  
Oil wells  
(pumpable resilient cement compns. and method for construction and repair of)

IT Setting agents  
(retarders; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 9003-55-8, Butadiene-styrene copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(Latex 2000; in pumpable resilient cement compns. for constructing and repairing oil and gas wells)

IT 7631-86-9, Silica, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(amorphous, fumed; in pumpable resilient cement compns. for constructing and repairing oil and gas wells)

IT 214405-38-6, Microbond M  
RL: MOA (Modifier or additive use); USES (Uses)  
(cement expansion additive; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 142540-03-2, CFR 3  
RL: MOA (Modifier or additive use); USES (Uses)  
(dispersant; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 9016-00-6, Poly[oxy(dimethylsilylene)]  
RL: MOA (Modifier or additive use); USES (Uses)  
(dispersants; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 7727-37-9, Nitrogen, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(foaming with; in pumpable resilient cement compns. for constructing and repairing oil and gas wells)

IT 96949-22-3, Welan gum  
RL: MOA (Modifier or additive use); USES (Uses)  
(in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 121546-77-8, Avanel S 150  
RL: MOA (Modifier or additive use); USES (Uses)  
(latex stabilizer; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 88031-77-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(plasticizer; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 10043-52-4, Calcium chloride, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(setting accelerator; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 87-69-4, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(setting retardant; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 9016-45-9, Ethoxylated nonylphenol  
RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

IT 88031-77-0  
RL: MOA (Modifier or additive use); USES (Uses)

(plasticizer; in pumpable resilient cement compns. for construction and repair of oil and gas wells)

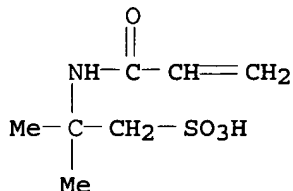
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

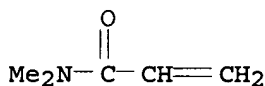
CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7

CMF C5 H9 N O



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:300474 HCAPLUS

DN 129:18952

TI Method for cementing a well-bore.

IN Mehta, Sudhir; Caveny, William J.

PA Halliburton Energy Services, Inc., USA; Atlantic Richfield Company

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5749418	A	19980512	US 1997-834065	19970414
	US 5972103	A	19991026	US 1998-13791	19980126
	CA 2287473	AA	19981022	CA 1998-2287473	19980403
	CA 2287473	C	20040706		
	WO 9846542	A1	19981022	WO 1998-GB996	19980403
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,				

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9869270	A1	19981111	AU 1998-69270	19980403
EP 973698	A1	20000126	EP 1998-914973	19980403
EP 973698	B1	20011205		
R: DE, FR, GB, IT, NL				
CN 1095810	B	20021211	CN 1998-804184	19980403
TW 396204	B	20000701	TW 1998-87105628	19980610
US 5968255	A	19991019	US 1999-228846	19990112
NO 9904952	A	19991011	NO 1999-4952	19991011
HK 1022295	A1	20020328	HK 2000-100925	20000216
PRAI US 1997-834065	A2	19970414		
US 1998-13791	A2	19980126		
WO 1998-GB996	W	19980403		
AB	The method comprises forming a cementitious composition comprising a hydraulic cement containing .gtorsim.0.3 weight% alkali metal sulfate, water in an amount sufficient to form a pumpable slurry, and Fe chloride 0.1-10 weight% (based on the cement), pumping the slurry into the well-bore, and allowing the slurry to solidify within the well-bore. The cement is portland cement, and the Fe chloride is selected from FeCl <sub>2</sub> and/or FeCl <sub>3</sub> . The Fe chloride predictably enhances the rheol. and performance of the compns.			
IC	ICM E21B033-13			
	ICS C04B022-12			
INCL	166292000			
CC	58-3 (Cement, Concrete, and Related Building Materials)			
	Section cross-reference(s): 51			
ST	well bore cementing portland cement; alkali metal sulfate iron chloride cement; fluid loss additive rheol cement; SCR100 cementing compn; HALAD 344 344L fluid loss additive			
IT	Wells (cementing of; alkali metal sulfate and iron chloride for rheol. control in compns. for)			
IT	Rheology (control of; bore hole-cementing compns. containing alkali metal sulfate and iron chloride for)			
IT	Cement (construction material) (portland; bore hole-cementing compns. containing alkali metal sulfate and iron chloride for rheol. control and)			
IT	7664-93-9D, Sulfuric acid, alkali metal salts, uses RL: MOA (Modifier or additive use); USES (Uses) (bore hole-cementing compns. containing portland cement and iron chloride, for rheol. control, and)			
IT	40623-75-4, SCR100 RL: MOA (Modifier or additive use); USES (Uses) (bore hole-cementing compns. containing portland cement, alkali metal sulfate, and iron chloride for heol. control and)			
IT	88031-77-0, HALAD 344 RL: MOA (Modifier or additive use); USES (Uses) (fluid loss additive; bore hole-cementing compns. containing portland cement and alkali metal sulfate and)			
IT	207692-30-6, Halad 344L RL: MOA (Modifier or additive use); USES (Uses) (fluid loss additive; bore hole-cementing compns. containing portland cement and alkali metal sulfate and iron chloride for rheol. control and)			
IT	7705-08-0, Ferric chloride, uses 7758-94-3, Ferrous chloride RL: MOA (Modifier or additive use); USES (Uses) (rheol.-control agent; bore hole-cementing compns. containing portland cement and alkali metal sulfate and)			

IT 40623-75-4, SCR100

RL: MOA (Modifier or additive use); USES (Uses)  
 (bore hole-cementing compns. containing portland cement  
 , alkali metal sulfate, and iron chloride for heol. control and)

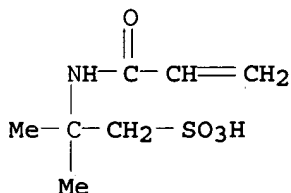
RN 40623-75-4 HCAPLUS

CN 2-Propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

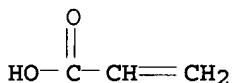
CMF C7 H13 N O4 S



CM 2

CRN 79-10-7

CMF C3 H4 O2



IT 88031-77-0, HALAD 344

RL: MOA (Modifier or additive use); USES (Uses)  
 (fluid loss additive; bore hole-cementing compns. containing  
 portland cement and alkali metal sulfate and)

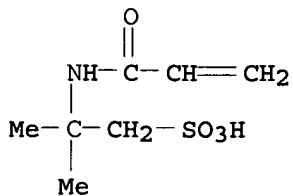
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer  
 with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

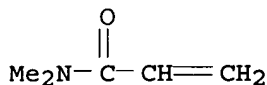
CRN 15214-89-8

CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7  
CMF C5 H9 N O



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:287390 HCAPLUS

DN 129:31357

TI **Hydraulic** compositions with high flowability

IN Tadokoro, Takaaki; Yamamuro, Hodaka

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10120451	A2	19980512	JP 1996-272286	19961015
PRAI	JP 1996-272286		19961015		

AB The title compns. contain water-soluble polymer with adsorption to cement <10% and that ≥10%, superplasticizer, **hydraulic** particles, and water. Thus, a concrete prepared from water 160, cement 350, sand 956, and crushed stone 850 kg/m3 with addition of a water-soluble polymer with adsorption to cement 2.0% prepared from a mixture of stearyl alc. and cetanol with addition of ethylene oxide 0.8, and methylcellulose with adsorption to cement 20.3% 0.05 weight% (vs. water), and superplasticizer 0.40 weight% (vs. cement) showed slump flow 59.5 cm and excellent segregation resistance.

IC ICM C04B024-32

ICS C04B024-26; C04B028-02; C04B103-30; C04B103-44

CC 58-2 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

ST **hydraulic** compn polymer superplasticizer flowability

IT Alcohols, uses

RL: MOA (Modifier or additive use); USES (Uses)

(C16-18, Kalcohol 86, polyoxyethylene ethers, thickeners;

**hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT Cement (construction material)

Concrete

Thickening agents

(**hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT Plasticizers

(superplasticizers; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT 36290-04-7, Mighty 150 122525-42-2, Mighty 150V-2 181319-33-5, FC 600S

RL: MOA (Modifier or additive use); USES (Uses)

(superplasticizer; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT 112344-11-3P, Acrylic acid-ethylene oxide graft copolymer 207973-61-3P,



Acrylic acid-polyethylene glycol monomethacrylate methyl ether graft copolymer 207973-62-4P, Monosodium maleate-polyethylene glycol monomethacrylate methyl ether graft copolymer 207973-63-5P, Acrylic acid-ethylene oxide-propylene oxide-sodium methallylsulfonate graft copolymer 208054-68-6P, Acrylic acid-ethylene oxide-propylene oxide block copolymer acrylate-sodium methallylsulfonate graft copolymer

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(superplasticizer; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to **cement** for flowability)

IT 9004-67-5, Methylcellulose

RL: MOA (Modifier or additive use); USES (Uses)  
(thickener, CMC Daicel 1170; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT 9004-81-3, Polyoxyethylene laurate 9057-02-7, PULLULAN 9082-01-3 11138-66-2, KELZAN 13081-34-0

RL: MOA (Modifier or additive use); USES (Uses)  
(thickener; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to cement for flowability)

IT 207973-63-5P, Acrylic acid-ethylene oxide-propylene oxide-sodium methallylsulfonate graft copolymer 208054-68-6P, Acrylic acid-ethylene oxide-propylene oxide block copolymer acrylate-sodium methallylsulfonate graft copolymer

RL: MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
(superplasticizer; **hydraulic** compns. containing water-soluble polymers having controlled adsorption to **cement** for flowability)

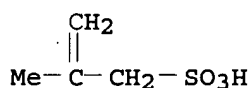
RN 207973-63-5 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane, oxirane and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 1561-92-8

CMF C4 H8 O3 S . Na

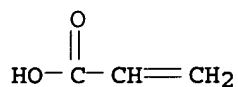


● Na

CM 2

CRN 79-10-7

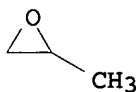
CMF C3 H4 O2



CM 3

CRN 75-56-9

CMF C3 H6 O



CM 4

CRN 75-21-8

CMF C2 H4 O



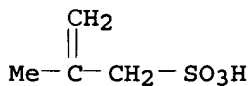
RN 208054-68-6 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane 2-propenoate, and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 1561-92-8

CMF C4 H8 O3 S . Na

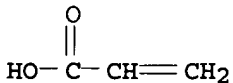


● Na

CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

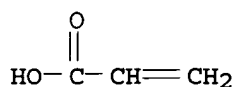
CRN 114654-22-7

CMF (C3 H6 O . C2 H4 O)x . x C3 H4 O2

CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 106392-12-5

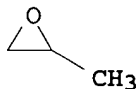
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 6

CRN 75-56-9

CMF C3 H6 O



CM 7

CRN 75-21-8

CMF C2 H4 O



L51 ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:277516 HCAPLUS

DN 128:325531

TI Dispersing agents for cement, and high-flow, self-compacting concrete and mortar containing the agents

IN Burge, Theodor A.; Ueli, Sulser; Jurg, Widmer; Krapf-Huber, Anna

PA Sika AG Vorm. Kaspar Winkler & Co., Switz.; Sika Schweiz AG

SO Eur. Pat. Appl., 15 pp.

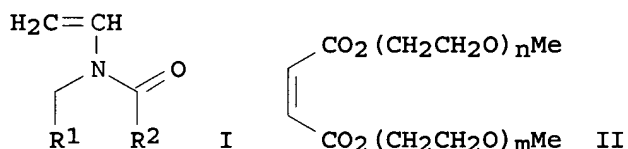
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 838444	A1	19980429	EP 1996-117234	19961027
	EP 838444	B1	20030709		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	AT 244692	E	20030715	AT 1996-117234	19961027
	PT 838444	T	20031128	PT 1996-117234	19961027
	ES 2203667	T3	20040416	ES 1996-117234	19961027
	NO 9703849	A	19980428	NO 1997-3849	19970821
	CA 2217232	AA	19980427	CA 1997-2217232	19970929
	JP 10279339	A2	19981020	JP 1997-294288	19971027
	JP 3636415	B2	20050406		
	US 5919300	A	19990706	US 1997-958325	19971027
PRAI	EP 1996-117234	A	19961027		
GI					



AB The agents comprise a water-soluble N-vinyl copolymer, prepared by copolymerizing an N-vinyl lactam or N-vinyl-amide (I) (same or different, R<sub>1</sub>, R<sub>2</sub> = H, C1-12-alkyl, or, together may form a di-, tri-, tetra-, or pentamethylene group, which forms a 5-, 6-, 7-, or 8-membered lactam ring with the amido moiety) with a polyethylene glycol ester of maleic acid containing 6 to 300 oxyethylene groups/mol (II) (same or different, m, n = integer 3-150), and ≥1 3rd monomers selected from maleic acid or its salts, fumaric acid or its salts, and itaconic acid or its salts (in which the salts are the alkali metal, alkaline earth, NH<sub>4</sub>, or amine salts) in 1st/2nd/3rd monomer ratio 1:(0.1-0.95):(0.05-0.90), and, optionally, methallylsulfonic acid or its salts as above. When an aqueous solution of this copolymer is used as an admixt. to freshly prepared concrete of even extremely low water/cement ratio, high fluidity, low decrease in flowability with progression of time, and lack of segregation over time is attained. The concrete and mortar contain 0.01-10 weight% dispersing agent and binder and/or latent hydraulic binder 150-800, preferably 450-750 kg/m<sup>3</sup> and water/binder ratio 0.15-0.50, preferably 0.18-0.35.

IC ICM C04B024-26

ICS C08F222-16; C08F226-00

CC 58-2 (Cement, Concrete, and Related Building Materials)

ST dispersing agent cement concrete mortar; copolymer dispersing agent cement; vinylpyrrolidone copolymer; maleic anhydride polyethyleneglycol ether copolymer; sodium maleate copolymer; methallylsulfonic acid copolymer

IT Cement (construction material)

(aluminous; copolymer dispersing agents for)

IT Oil shale

RL: TEM (Technical or engineered material use); USES (Uses)

(burnt; copolymer dispersing agents for cement and)

IT Cement (construction material)

(copolymer dispersing agents for)

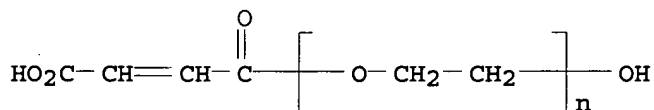
IT Slags

(copolymer dispersing agents for cement and)

IT Concrete

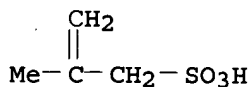
Mortar

(copolymer dispersing agents for cement in)  
 IT Ashes (residues)  
 (fly; copolymer dispersing agents for cement and)  
 IT Cement (construction material)  
 (portland; copolymer dispersing agents for)  
 IT Cement (construction material)  
 (white; copolymer dispersing agents for)  
 IT 7631-86-9, Silica, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (amorphous, fume; copolymer dispersing agents for cement and)  
 IT 471-34-1, Calcium carbonate, uses 15123-81-6, Metakaolin  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (copolymer dispersing agents for cement and)  
 IT 206768-62-9 206768-63-0 206768-64-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersant; for concrete and mortar)  
 IT 206768-64-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersant; for concrete and mortar)  
 RN 206768-64-1 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with  $\alpha$ -[(2Z)-3-carboxy-1-oxo-2-propenyl]- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), 1-ethenyl-2-pyrrolidinone and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 37916-19-1  
 CMF (C2 H4 O)n C4 H4 O4  
 CCI PMS



CM 2

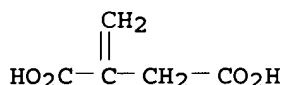
CRN 1561-92-8  
 CMF C4 H8 O3 S . Na



● Na

CM 3

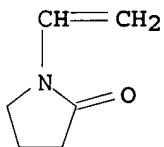
CRN 97-65-4  
 CMF C5 H6 O4



CM 4

CRN 88-12-0

CMF C6 H9 N O



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 27 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:116073 HCAPLUS

DN 128:144417

TI Well-cement compositions, and method for cementing subterranean wells  
using the compositions

IN Chatterji, Jiten; Totten, Patty L.; King, Bobby J.; Onan, David D.

PA Halliburton Energy Services, Inc., USA

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 816300	A2	19980107	EP 1997-304732	19970630
	EP 816300	A3	19980121		
	EP 816300	B1	20020327		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 5795924	A	19980818	US 1997-839839	19970417
	US 5820670	A	19981013	US 1997-868223	19970603
PRAI	US 1996-673987	A	19960701		
	US 1997-839839	A	19970417		
	US 1997-868223	A	19970603		
OS	MARPAT 128:144417				
AB	The compns. comprise <b>hydraulic</b> cement, 5-30 weight% fumed SiO <sub>2</sub> (based on the cement), water in an amount sufficient to form a pumpable slurry, gas for foaming the composition, a foaming agent, and a foam stabilizer. The compns. have improved elasticity and ductility, and are especially suitable for the construction and repair of oil and gas wells.				
IC	ICM C04B028-04				
	ICS E21B033-13; C04B014-06; C04B018-14				
CC	58-3 ( <b>Cement</b> , Concrete, and Related Building Materials)				
	Section cross-reference(s): 51				
ST	pumpable cement oil gas well cementing; portland cement oil gas well cementing; fumed silica portland cement; foaming agent gas portland cement; foam stabilizer gas portland cement; rubber latex portland cement;				

- Latex 2000 butadiene styrene rubber; Avanel S150 portland cement slurry; AMPS dimethylacrylamide copolymer cement; acrylic acid AMPS copolymer cement; tartaric acid; olefin sulfonic acid sodium salt cement; polydimethylsiloxane cement; cocoylamidopropylbetaine foam stabilizer; ethoxylated nonylphenol cement; CFR3 dispersant cement; HC2 foam stabilizer
- IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkene, sodium salts, foaming agents; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT Polysiloxanes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (di-Me, antifoaming agent; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT Antifoaming agents  
 Dispersing agents  
 Foaming agents  
 Stabilizing agents  
 (in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT Styrene-butadiene rubber, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (latex, Unocal 2000; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT Cement (construction material)  
 (portland; in pumpable and foamable compns. for cementing oil and gas wells)
- IT Natural gas wells  
 Oil wells  
 (pumpable and foamable cement compns. for cementing of)
- IT Setting agents  
 (retarders; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 9016-00-6, Poly[oxy(dimethylsilylene)]  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antifoaming agent; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 142540-03-2, CFR 3  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dispersant, CFR 3; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 107-43-7D, Betaine, coco amidopropyl  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (foam stabilizer; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 7631-86-9, Silica, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fumed; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 9016-45-9, Ethoxylated nonylphenol 121546-77-8, Avanel S150  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (latex stabilizer; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 87-69-4, Tartaric acid, uses 40623-75-4, Acrylic acid-AMPS copolymer 88031-77-0  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (setting retardant; in pumpable and foamable cement compns. for cementing oil and gas wells)
- IT 9003-55-8  
 RL: MOA (Modifier or additive use); USES (Uses)

(styrene-butadiene rubber, latex, Unocal 2000; in pumpable and foamable cement comps. for cementing oil and gas wells)

IT 40623-75-4, Acrylic acid-AMPS copolymer 88031-77-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(setting retardant; in pumpable and foamable cement comps. for cementing oil and gas wells)

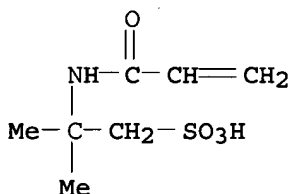
RN 40623-75-4 HCAPLUS

CN 2-Propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

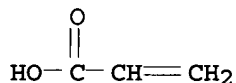
CMF C7 H13 N O4 S



CM 2

CRN 79-10-7

CMF C3 H4 O2



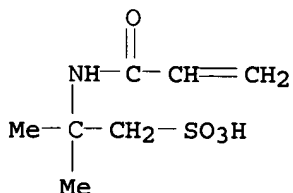
RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

CMF C7 H13 N O4 S

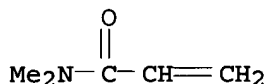


CM 2

CRN 2680-03-7



CMF C5 H9 N O



L51 ANSWER 28 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:27093 HCAPLUS

DN 126:93666

TI Method for cementing conduits in multilateral subterranean wells

IN Vijn, Jan P.; Xenakis, Zacharias; Bour, Daniel L.; Childs, Jerry D.

PA Halliburton Co., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5588488	A	19961231	US 1995-518082	19950822
PRAI	US 1995-518082		19950822		

AB This method, whereby the set cement can withstand impacts and shocks subsequently generated by drilling and other well operations without shattering, comprises (a) introducing a cement slurry composition (which sets into a high-strength, impact-resistant solid mass between the conduits and the walls of the well) comprising an aqueous butadiene-styrene latex, an effective amount of a latex stabilizer selected from surfactants having general formula  $\text{RPhO}(\text{OCH}_2\text{CH}_2)_m\text{H}$  (I) ( $\text{R}$  = C5-30-alkyl;  $\text{Ph}$  = phenylene;  $m$  = integer 5-50), and surfactants having general formula  $\text{R}_1(\text{OR}_2)_n\text{SO}_3\text{X}$  (II) [ $\text{R}_1$  = C1-30-alkyl, C5-6-cycloalkyl, C1-4-alkyl-substituted C5-6-cycloalkyl,  $\text{Ph}$ , alkyl-substituted  $\text{Ph}$  of general formula  $\text{R}_3\text{aPh}$  ( $\text{Ph}$  = phenylene;  $\text{R}_3$  = C1-18-alkyl;  $a$  = integer 1-3), and  $\text{PhC1-18-alkyl}$  groups containing approx. 8-28 C atoms;  $\text{R}_2$  = substituted ethylene of formula  $\text{CH}_2\text{CHR}_4$  ( $\text{R}_4$  is  $\geq 1$  of H, Me, and Et;  $n$  = 0-40, provided that when  $\text{R}_1$  =  $\text{Ph}$  or alkyl-substituted  $\text{Ph}$ ;  $n \geq 1$ );  $\text{X}$  = compatible cation] and **hydraulic** cement, and (b) allowing the cement slurry to set in the well. More specifically, the method comprises introducing a cement slurry composition (setting into a high-strength, impact-resistant solid mass between the casing and liners and the walls of the well) comprising an aqueous butadiene-styrene latex (water content .apprx.50 weight%; styrene/butadiene weight ratio approx. 10:90 to approx. 90:10), a latex stabilizer selected from surfactants having general formula I, surfactants having general formula II, and **hydraulic** cement present in an amount of approx. 111-285 weight% (based on the aqueous butadiene-styrene latex), and (b) allowing the slurry to set in the well.

IC ICM E21B033-14

ICS C04B007-00

INCL 166293000

CC 58-3 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 51

ST well cementing cement latex surfactant; butadiene styrene latex cement surfactant; ethoxylated nonylphenol surfactant; sodium alkylsulfonate surfactant polymer; acrylamido methylpropanesulfonic acrylic acid polymer

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(C12-15-alkyl ethers, sulfate, sodium salt, stabilizers; method and

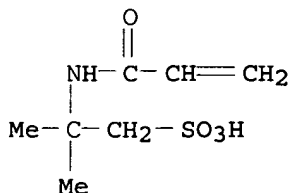
- compsns. for cementing conduits in multilateral subterranean wells)
- IT Ketones, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(aliphatic, polymers with aldehydes and unsatd. carboxylic acids, dispersants; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Aldehydes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(aliphatic, polymers, with aliphatic ketones and unsatd. carboxylic acids, dispersants; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Cement (construction material)  
Dispersing agents  
Latex  
(method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Cement (construction material)  
(portland; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Setting agents  
(retarders; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Surfactants  
(stabilizers; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Stabilizing agents  
(surfactants; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(unsatd., polymers, with aliphatic ketones and aliphatic aldehyde, dispersants; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT 9003-55-8, Butadiene-styrene polymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(latex; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT 40623-75-4, 2-Acrylamido-2-methylpropanesulfonic acid-acrylic acid copolymer  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(method and compsns. for cementing conduits in multilateral subterranean wells)
- IT 9016-45-9, Ethoxylated nonylphenol  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(stabilizer; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT 25322-68-3D, C12-15-alkyl ethers, sulfate, sodium salt  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(stabilizers; method and compsns. for cementing conduits in multilateral subterranean wells)
- IT 40623-75-4, 2-Acrylamido-2-methylpropanesulfonic acid-acrylic acid copolymer  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(method and compsns. for cementing conduits in multilateral subterranean wells)
- RN 40623-75-4 HCAPLUS

CN 2-Propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

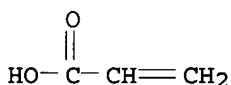
CMF C7 H13 N O4 S



CM 2

CRN 79-10-7

CMF C3 H4 O2



L51 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:681943 HCAPLUS

DN 126:22206

TI Well cementing methods and compositions for use in cold environments

IN Griffith, James E.; Totten, Patty L.; King, Bobby L.; Chatterji, Jiten

PA Halliburton Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5571318	A	19961105	US 1995-521705	19950831
PRAI	US 1995-521705		19950831		

AB The cement compns. are comprised of a coarse particulate **hydraulic** cement mixed with an ultra fine particulate **hydraulic** cement, sufficient water to form a pumpable slurry and a fluid loss control additive. The compns. are especially suitable for cementing conductor strings in deep water offshore wells.

IC ICM C04B007-02

ICS C04B024-16

INCL 106725000

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 51

ST well cementing compn cold environment; **hydraulic** cement cementing compn

IT Cement (construction material)

Wells

(cement compns. for cementing conductor strings in deep water offshore wells)

IT 88031-77-0, 2-Acrylamido-2-methyl propane sulfonic acid-N,N-dimethylacrylamide copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fluid loss control additive; in cement compns. for cementing conductor strings in deep water offshore wells)

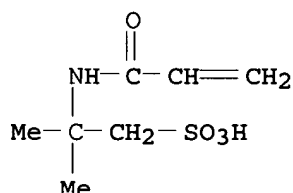
IT 88031-77-0, 2-Acrylamido-2-methyl propane sulfonic acid-N,N-dimethylacrylamide copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fluid loss control additive; in cement compns. for cementing conductor strings in deep water offshore wells)

RN 88031-77-0 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

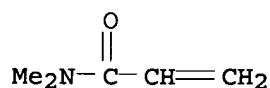
CM 1

CRN 15214-89-8  
 CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7  
 CMF C5 H9 N O



L51 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1995:531984 HCAPLUS  
 DN 122:272360  
 TI Cementing composition and method using phosphonated polymers to improve cement slurry properties  
 IN Dawson, Jeffrey C.; Wood, William R.  
 PA BJ Services Co., USA  
 SO U.S., 10 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5336316	A	19940809	US 1993-58295	19930506
	WO 9427025	A1	19941124	WO 1994-US4556	19940506

W: NO

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI US 1993-58295 A 19930506

OS MARPAT 122:272360

AB An oil and gas well cementing composition and method is shown utilizing **hydraulic** cement, water and an additive having pendant phosphonate groups on a polymeric backbone. The additive provides improved fluid loss and settling characteristics while maintaining desirable viscosity and setting time characteristics. Pendant phosphonate groups are added to the polymer by adding about 0.2% to about 10.0% by weight phosphonic acid either during or after polymerization

IC ICM C04B022-16

INCL 106724000

CC 58-3 (Cement, Concrete, and Related Building Materials)

ST polymeric modifier well cementing

IT 9000-01-5, Arabic gum 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-40-2, Locust bean gum 9000-69-5, Pectin 9002-89-5, Polyvinyl alcohol 9004-30-2, Carboxymethyl hydroxyethyl cellulose 9004-32-4, Carboxymethyl cellulose 9004-34-6, Cellulose, uses 9004-62-0, Hydroxyethyl cellulose 9005-25-8, Starch, uses 11138-66-2, Xanthan gum 39421-75-5, Hydroxypropyl guar 39454-79-0, Carboxymethyl hydroxypropyl guar 130493-84-4 161748-51-2 161780-27-4

RL: MOA (Modifier or additive use); USES (Uses)

(in cementing slurries for oil and gas wells)

IT 161780-27-4

RL: MOA (Modifier or additive use); USES (Uses)

(in cementing slurries for oil and gas wells)

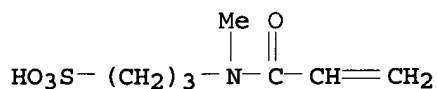
RN 161780-27-4 HCAPLUS

CN 1-Propanesulfonic acid, 3-[methyl(1-oxo-2-propenyl)amino]-, polymer with N-ethenylacetamide, ethenylphosphonic acid and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 79613-64-2

CMF C7 H13 N O4 S



CM 2

CRN 5202-78-8

CMF C4 H7 N O



CM 3

CRN 1746-03-8

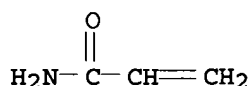
CMF C2 H5 O3 P



CM 4

CRN 79-06-1

CMF C3 H5 N O



L51 ANSWER 31 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:374880 HCAPLUS

DN 122:140796

TI Setting retardant for cement-containing mixes

IN Rodrigues, Klein A.

PA Halliburton Co., USA

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 633390	A1	19950111	EP 1994-304841	19940701
	EP 633390	B1	19990915		
	R: DE, FR, GB, IT, NL				
	NO 9402497	A	19950102	NO 1994-2497	19940701
	CA 2127346	AA	19950102	CA 1994-2127346	19940704
	CA 2127346	C	20030513		
	US 5536311	A	19960716	US 1995-510293	19950802
PRAI	US 1993-86403	A	19930701		
	US 1992-955604	B2	19921002		
	US 1994-289834	B1	19940812		

AB A setting retardant for a **hydraulic** cement composition comprises a polymer formed from two or three different monomers. The 1st monomer is a compound of formula (R1)R2C:CR3(R4) wherein R1 is a H or CH3; R2 is H or COOH; R3 is H or COOH; and R4 is H, COOH or CH2COOH; provided that when R1 is H and R2 is COOH, R3 and R4 are different and are either H or COOH; when R1 and R2 are both H, R3 is COOH and R4 is CH2COOH; and when R1 is CH3, R2 is COOH and R3 and R4 are different and are either H or COOH; the 2nd monomer-forming compound is 2-acrylamido-2-methylpropane sulfonic acid, sodium methyl sulfonate, sodium p-vinyl benzene sulfonate, acrylamide, N,N-dimethylacrylamide, vinyl sulfonic acid, acrylonitrile, 1-vinyl-2-pyrrolidone, vinyl phosphonic acid, diallyldimethylammonium chloride, diethylaminoethyl methacrylate, dimethylaminoethyl acrylate Me chloride, methacrylamido propyltrimethyl ammonium chloride, N,N-dimethylaminoethyl methacrylate, or 2-triethylammoniummethyl methacrylate chloride; and the 3rd monomer-forming compds.

ICM E21B033-13

ICS C04B024-26; C04B024-16

CC 58-2 (Cement, Concrete, and Related Building Materials)

ST polymeric setting retardant cement mix

IT Cement

(polymeric setting retardant for cement-containing mixes)

IT Concrete  
 (polymeric setting retardant for concrete mixes)

IT Mortar  
 (polymeric setting retardant for mortar mixes)

IT 69952-29-0P 79996-03-5P 106173-71-1P  
 115426-14-7P 115426-15-8P 161122-59-4P  
 RL: MOA (Modifier or additive use); PNU (Preparation,  
 unclassified); PREP (Preparation); USES (Uses)  
 (setting retardant for cement-containing mixes)

IT 69952-29-0P 79996-03-5P 106173-71-1P  
 115426-14-7P 115426-15-8P 161122-59-4P  
 RL: MOA (Modifier or additive use); PNU (Preparation,  
 unclassified); PREP (Preparation); USES (Uses)  
 (setting retardant for cement-containing mixes)

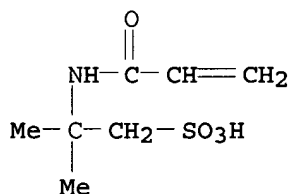
RN 69952-29-0 HCAPLUS

CN 2-Butenedioic acid (2Z)-, polymer with ethenyl acetate and  
 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA  
 INDEX NAME)

CM 1

CRN 15214-89-8

CMF C7 H13 N O4 S

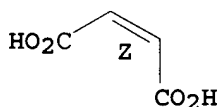


CM 2

CRN 110-16-7

CMF C4 H4 O4

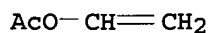
Double bond geometry as shown.



CM 3

CRN 108-05-4

CMF C4 H6 O2



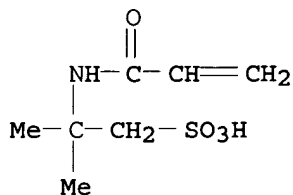
RN 79996-03-5 HCAPLUS

CN 2-Butenedioic acid (2Z)-, polymer with 2-methyl-2-[(1-oxo-2-

propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI) (CA  
INDEX NAME)

CM 1

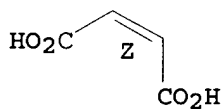
CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 2

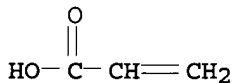
CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.



CM 3

CRN 79-10-7  
CMF C3 H4 O2

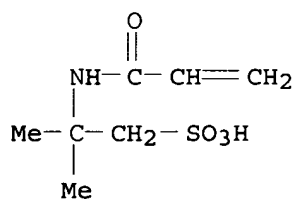


RN 106173-71-1 HCAPLUS  
CN Butanedioic acid, methylene-, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI) (CA  
INDEX NAME)

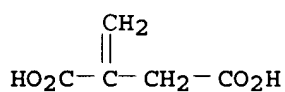
CM 1

CRN 15214-89-8  
CMF C7 H13 N O4 S

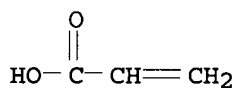




CM 2

 CRN 97-65-4  
 CMF C5 H6 O4


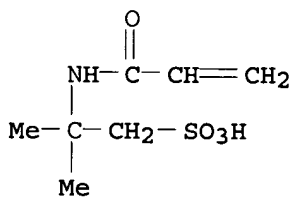
CM 3

 CRN 79-10-7  
 CMF C3 H4 O2


RN 115426-14-7 HCAPLUS

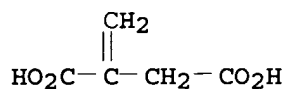
CN Butanedioic acid, methylene-, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

 CRN 15214-89-8  
 CMF C7 H13 N O4 S


CM 2

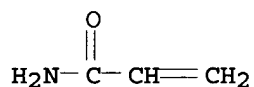
 CRN 97-65-4  
 CMF C5 H6 O4



CM 3

CRN 79-06-1

CMF C3 H5 N O



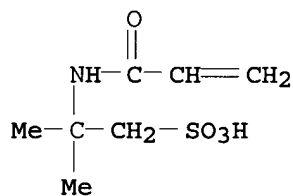
RN 115426-15-8 HCAPLUS

CN 2-Butenedioic acid (2Z)-, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 15214-89-8

CMF C7 H13 N O4 S

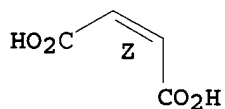


CM 2

CRN 110-16-7

CMF C4 H4 O4

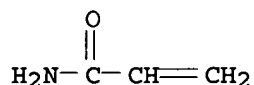
Double bond geometry as shown.



CM 3

CRN 79-06-1

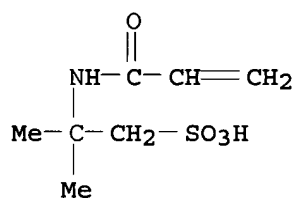
CMF C3 H5 N O



RN 161122-59-4 HCAPLUS  
 CN Butanedioic acid, methylene-, polymer with ethenyl acetate and  
 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA  
 INDEX NAME)

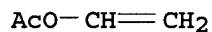
CM 1

CRN 15214-89-8  
 CMF C7 H13 N O4 S



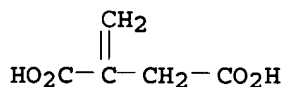
CM 2

CRN 108-05-4  
 CMF C4 H6 O2



CM 3

CRN 97-65-4  
 CMF C5 H6 O4



L51 ANSWER 32 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1995:325803 HCAPLUS  
 DN 122:113241  
 TI Admixtures for **hydraulic** cement to improve flowability  
 IN Hayamizu, Juji; Obata, Yasuhiko; Kurumaya, Yoshihiko  
 PA Rengo Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06293543	A2	19941021	JP 1993-79503	19930406
	JP 07094340	B4	19951011		
PRAI	JP 1993-79503		19930406		

AB The title admixts. comprise water-soluble copolymers prepared from N-substituted- $\alpha,\beta$ -unsatd. monocarboxamide derivs. CH<sub>2</sub>:CR<sub>1</sub>CONHR<sub>2</sub>SO<sub>3</sub>X (I; R<sub>1</sub> = H, lower alkyls; R<sub>2</sub> = C1-4 normal or branched alkylene; X = H, alkaline metals, alkali earth metals, organic NH<sub>4</sub>) and ethylenic unsatd. dicarboxylic anhydrides (II) at I-II mol. ratio 50:50-90:10 and weight average mol. weight  $\geq 5000$ . Thus, cement 450, gravel 1008, sand 668, and water 183 kg/m<sup>3</sup> were mixed with addition of 0.45 weight% (vs. cement) copolymer prepared from (A) 2-acrylamide-2-methylpropanesulfonic acid and (B) maleic anhydride at A-B mol. ratio 57.7:42.3 and weight average mol. weight 5000, and 0.0020 weight% (vs. cement) air-entraining agents to give a mortar having slump value and air content at 0, 30, 60, and 90 min after mixing 21.9, 22.3, 20.8, and 19.3 cm and 4.4, 3.9, 3.9, and 3.5%, resp.

IC ICM C04B024-26  
ICS C08F220-58; C08F222-06; C08L033-00

CC 58-1 (Cement, Concrete, and Related Building Materials)  
Section cross-reference(s): 38

ST admixt cement copolymer

IT Cement  
(admixts. for)

IT 118571-34-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(cement admixts. containing)

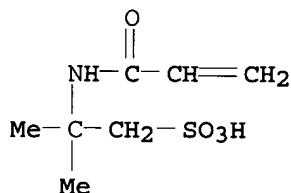
IT 118571-34-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(cement admixts. containing)

RN 118571-34-9 HCAPLUS

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with 2,5-furandione (9CI) (CA INDEX NAME)

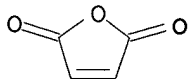
CM 1

CRN 15214-89-8  
CMF C7 H13 N O4 S



CM 2

CRN 108-31-6  
CMF C4 H2 O3



L51 ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:242546 HCAPLUS

DN 122:15755

TI **Hydraulic** compositions for cementing bore holes drilled through low-temperature formations

IN Kunzi, Robert A.; Vinson, Edward F.; Totten, Patty L.; Brake, Bobby G.

PA Halliburton Co., USA

SO U.S., 7 pp. Cont.-in-part of U.S Ser. No.832,209, abandoned

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5346550	A	19940913	US 1993-112826	19930826
	CA 2122964	AA	19950227	CA 1994-2122964	19940505
	CA 2122964	C	20000829		
	US 5447198	A	19950905	US 1994-258155	19940610
PRAI	US 1992-832209	B2	19920205		
	US 1993-112826	A	19930826		

AB The compns. contain cement 5-30, gypsum 25-50, fly ash 5-30, and alkali metal halide 1-18 lb/bag, and water 2-12 gal/bag, and an alc. f.p.-depressant 1-18 weight% based on the water. More specifically, the alkali metal chloride is an alkali metal halide, a dispersant consisting of a mixture of poly(vinylpyrrolidone) and the Na salt of a H2CO-naphthalenesulfonic acid copolymer may be present in the amount of 0.1-0.35 lb/bag, and the f.p. depressant is ethyleneglycol. These compns. gave 48-h compressive strength at 40 °F 85 and 75, 445-496 after 1 freeze-thaw cycle (14-days), and 402-410 psi after 3 cycles (42 days).

IC ICM C04B014-04

INCL 106709000

CC 58-1 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 51

ST cement gypsum bore hole cementing; alkali metal halide chloride cement; dispersant antifreeze well cement; polyvinyl pyrrolidone dispersant cement; formaldehyde naphthalenesulfonic acid polymer dispersant; sodium formaldehyde naphthalenesulfonate dispersant; ethyleneglycol freezing point depressant cement

IT Kieselguhr

RL: MOA (Modifier or additive use); USES (Uses)

(filler; **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)

IT Antifreeze substances

Cement

Dispersing agents

Wells

(**hydraulic** compns. for cementing bore holes drilled through low-temperature formations)

IT Alkali metal chlorides

Alkali metal halides, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**hydraulic** compns. for cementing bore holes drilled through low-temperature formations)

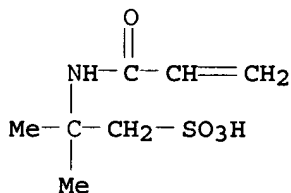
IT Ashes (residues)

(fly, **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)

IT Cement

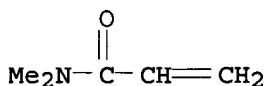
(portland, **hydraulic** compns. for cementing bore holes drilled

- through low-temperature formations)
- IT 107-21-1, Ethyleneglycol, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(antifreeze; **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- IT 9003-39-8, Polyvinyl pyrrolidone 9084-06-4, Formaldehyde-naphthalenesulfonic acid polymer sodium salt  
RL: MOA (Modifier or additive use); USES (Uses)  
(dispersant; **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- IT 88031-77-0D, hydrolyzed  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss-control additive; **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- IT 7647-14-5, Sodium chloride, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- IT 13397-24-5, Gypsum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- IT 88031-77-0D, hydrolyzed  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluid loss-control additive; **hydraulic** compns. for cementing bore holes drilled through low-temperature formations)
- RN 88031-77-0 HCAPLUS
- CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)
- CM 1
- CRN 15214-89-8
- CMF C7 H13 N O4 S



CM 2

CRN 2680-03-7  
CMF C5 H9 N O



L51 ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1994:637118 HCAPLUS

DN 121:237118  
 TI free-flowing **hydraulic** materials  
 IN Yonezawa, Toshio; Mitsui, Tateo; Yanagibashi, Kunio; Ikeo, Yosaku; Okuno, Tooru; Asakura, Etsuro; Yoshida, Hisatsugu; Sato, Mitsuo; Kinoshita, Mitsuo  
 PA Takenaka Komuten Co, Japan; Mitsubishi Materials Corp; Keihin Ryoko Konkuriito Kogyo; Takemoto Oil & Fat Co Ltd  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06211550	A2	19940802	JP 1993-24821	19930119
PRAI	JP 1993-24821		19930119		

AB The materials comprise binders of cement and SiO<sub>2</sub> fume, <1% (based on the binders) water-soluble vinyl copolymer dispersion, and ≤60% (based on the binders) water, wherein most cement particles have coagulated SiO<sub>2</sub> fume having primary particle diameter ≤0.5 μm on part or all of the surface, and the binders contain ≤10 volume% particles having diameter ≤1 μm in particles having diameter 0.1-35 μm. The materials may contain 5-35% SiO<sub>2</sub> fume, ≥60% vitreous SiO<sub>2</sub>, and have sp. surface area 5-100 m<sup>2</sup>/g. The SiO<sub>2</sub> fume particles may be dispersed in water, and ≥30 volume% the dispersed particles having diameter ≤1 μm may be contained in the dispersed particles.

IC ICM C04B007-24  
 ICS C04B028-02

ICI C04B028-02, C04B022-06, C04B024-26

CC 58-1 (**Cement**, Concrete, and Related Building Materials)

ST silica fume **hydraulic** cement fluidity

IT Cement  
 (silica fume coating free-flowing **hydraulic** cement particles)

IT 124934-10-7  
 RL: MOA (**Modifier or additive use**); USES (Uses)  
 (dispersant; silica fume coating free-flowing **hydraulic cement** particles)

IT 7631-86-9, Silica, uses  
 RL: MOA (**Modifier or additive use**); TEM (Technical or engineered material use); USES (Uses)  
 (fume; silica fume coating for free-flowing **hydraulic cement** particles)

IT 124934-10-7  
 RL: MOA (**Modifier or additive use**); USES (Uses)  
 (dispersant; silica fume coating free-flowing **hydraulic cement** particles)

RN 124934-10-7 HCAPLUS

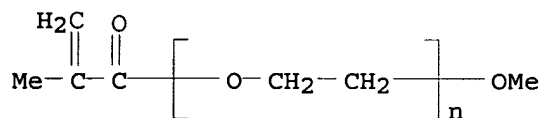
CN 2-Propenoic acid, 2-methyl-, sodium salt, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and sodium 2-methyl-2-propene-1-sulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

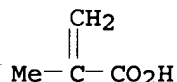
CCI PMS



CM 2

CRN 5536-61-8

CMF C4 H6 O2 . Na

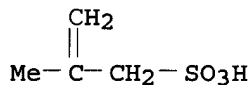


● Na

CM 3

CRN 1561-92-8

CMF C4 H8 O3 S . Na



● Na

L51 ANSWER 35 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:191326 HCAPLUS

DN 114:191326

TI Heat-resistant composite building materials

IN Kajikawa, Akira; Kiyomoto, Masayuki; Sakurai, Hiroshi; Mano, Kiichi

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02267147	A2	19901031	JP 1989-87964	19890410
PRAI	JP 1989-87964		19890410		

AB The composite materials are prepared by kneading  $\geq 1$  of hydraulic cement, water, and  $\geq 1$  water-soluble cationic (meth)acrylic polymers, and curing the mixture. The material has high heat resistance and mech. strength. Cured material prepared from a mixture of aluminous cement, Kayafloc C 599-2P (copolymer of acrylamide and reaction

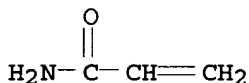


product of dimethylaminoethyl methacrylate and Me chloride), and water had high bending strength and stable shape, even after heating at 400°.

IC ICM C04B028-00  
 ICI C04B028-00, C04B024-26  
 CC 58-1 (Cement, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38  
 ST acrylic polymer cement building material; hydraulic  
 cement polymer building material  
 IT Cement  
 (building materials containing cationic acrylic polymers and, for heat  
 resistance and strength)  
 IT Building materials  
 (hydraulic cement-polymer, heat-resistant)  
 IT 26006-22-4 35429-19-7 60162-07-4 69418-26-4  
 RL: USES (Uses)  
 (building materials containing hydraulic cement and, for heat  
 resistance and strength)  
 IT 26006-22-4 35429-19-7 69418-26-4  
 RL: USES (Uses)  
 (building materials containing hydraulic cement and, for heat  
 resistance and strength)  
 RN 26006-22-4 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl  
 sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1  
 CMF C3 H5 N O

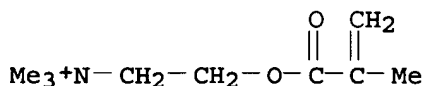


CM 2

CRN 6891-44-7  
 CMF C9 H18 N O2 . C H3 O4 S

CM 3

CRN 33611-56-2  
 CMF C9 H18 N O2



CM 4

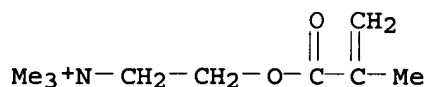
CRN 21228-90-0  
 CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

RN 35429-19-7 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

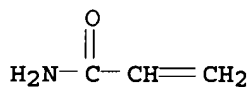
CRN 5039-78-1  
 CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

CM 2

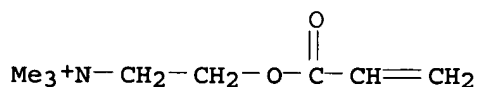
CRN 79-06-1  
 CMF C3 H5 N O



RN 69418-26-4 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

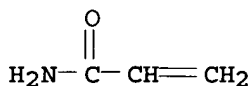
CRN 44992-01-0  
 CMF C8 H16 N O2 . Cl



● Cl<sup>-</sup>

CM 2

CRN 79-06-1  
 CMF C3 H5 N O



L51 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:45577 HCAPLUS

DN 114:45577

TI Acidic disinfectant all-purpose liquid cleaning composition, especially for removing soap scum and mineral deposits

IN Cook, William Jimmy; Dixit, Nagaraj Shripad; Wisniewski, Karen Lee; Rao, Nandakumar Seshagiri

PA Colgate-Palmolive Co., USA

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 379256	A2	19900725	EP 1990-200105	19900116
	EP 379256	A3	19911016		
	EP 379256	B1	19960515		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	US 5008030	A	19910416	US 1989-297807	19890117
	CA 2007812	AA	19900717	CA 1990-2007812	19900116
	CA 2007812	C	19950418		
	AT 138093	E	19960615	AT 1990-200105	19900116
PRAI	US 1989-297807	A	19890117		

AB The title composition contains 0.5-4% mixture of water-soluble and water-dispersible nonionic surfactants, 3-7% lower aliphatic mono- and/or dicarboxylic acid, ≥0.1% antimicrobial compound, and 0-2% cationic or anionic soil releasing agent, the balance being water, and has pH 2-4. The composition is especially useful for cleaning soap scum and mineral deposits from hard surfaces such as **grout**, ceramic tile, stainless steel and glass in bathrooms and kitchens. A composition contained 5.0% 11.6:57.5:27 adipic acid-glutaric acid-succinic acid mixture, 1.5% Neodol 91-8, 0.7% Neodol 91-2.5, and 0.4% BTC 2125 M (50% benzalkonium chloride solution), the balance being water and NaOH (to give pH 2.5).

ICM C11D001-825

ICS C11D003-20; C11D003-48

CC 46-6 (Surface Active Agents and Detergents)

ST acid cleaner disinfectant liq; adipic acid cleaner disinfectant; glutaric acid cleaner disinfectant; succinic acid cleaner disinfectant; carboxylic acid cleaner disinfectant; soap scum remover cleaner; bathroom cleaner disinfectant acid; kitchen cleaner disinfectant acid

IT Bactericides, Disinfectants, and Antiseptics

(cleaners containing acid and, liquid, soap scum-removing)

IT Alcohols, compounds

RL: USES (Uses)

(C9-11, ethoxylated, cleaners containing acid and, liquid, disinfectant-containing, soap scum-removing)

IT Quaternary ammonium compounds, uses and miscellaneous

RL: USES (Uses)

(alkylbenzyltrimethyl, chlorides, disinfecting cleaners containing acid and, liquid, soap scum-removing)

IT Quaternary ammonium compounds, uses and miscellaneous

RL: USES (Uses)  
 (benzyl-C12-16-alkyldimethyl, chlorides, disinfecting cleaners containing acid and, liquid, soap scum-removing)

IT Detergents  
 (cleaning compns., liquid, acid- and disinfectant-containing, soap scum-removing)

IT Carboxylic acids, uses and miscellaneous  
 RL: USES (Uses)  
 (di-, aliphatic, cleaners containing, liquid, disinfecting, soap scum-removing)

IT 79-14-1, Hydroxyacetic acid, uses and miscellaneous 110-15-6,  
 Butanedioic acid, uses and miscellaneous 110-94-1, Pentanedioic acid  
 124-04-9, Hexanedioic acid, uses and miscellaneous 26717-14-6  
 RL: USES (Uses)  
 (cleaners containing, liquid, disinfecting, soap scum-removing)

IT 55-56-1  
 RL: USES (Uses)  
 (disinfecting cleaners containing acid and, liquid, soap scum-removing)

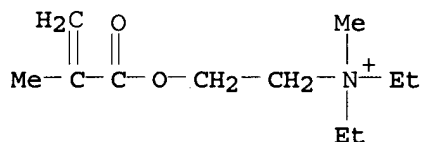
IT 26717-14-6  
 RL: USES (Uses)  
 (cleaners containing, liquid, disinfecting, soap scum-removing)

RN 26717-14-6 HCAPLUS  
 CN Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
 methyl sulfate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 48064-66-0

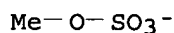
CMF C11 H22 N O2



CM 2

CRN 21228-90-0

CMF C H3 O4 S



L51 ANSWER 37 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1990:61795 HCAPLUS  
 DN 112:61795  
 TI Admixture for **cement** and **cement** composition containing  
 the admixture  
 IN Sakakibara, Toku; Tanaka, Kenji; Akamatsu, Takashi  
 PA Sanyo Chemical Industries Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01203251	A2	19890816	JP 1988-29329	19880210
PRAI	JP 1988-29329		19880210		

AB A **cement** admixt. is quaternary ammonium base-containing cationic or amphoteric resin and a **cement** composition contains **cement**, aggregates, other additives if necessary, and the **cement** admixt. Laitance formation on the surface of concrete is prevented by addition of the admixt. and the **cement** composition containing the admixt. is cured within a short time with no need of wet curing in the initial stage. Methacryloyloxyethyltrimethylammonium chloride, acrylic acid, and trimethylolpropane triacrylate were polymerized to give a gel-like water-containing crosslinked copolymer which was dried and pulverized to obtain an admixt. A **cement** composition containing portland **cement**, river sand, and the admixt. was mixed with water and the resulting mixture was held for 24 h at room temperature and 60-70% relative humidity for curing and the cured **cement** had no laitance and much higher strength after 7 days and 28 days than a **cement** composition containing no admixt.

IC ICM C04B024-26

CC 58-1 (**Cement**, Concrete, and Related Building Materials)

ST admixt **cement** quaternary ammonium polymer; laitance prevention **cement** admixt

IT **Cement**  
(admixts. for, quaternary ammonium-containing cationic or amphoteric resin as, for preventing laitance formation)

IT 120619-35-4 124335-13-3 124335-14-4  
RL: USES (Uses)  
(admixts., for **cement** compns., for preventing laitance formation)

IT 120619-35-4 124335-13-3 124335-14-4  
RL: USES (Uses)  
(admixts., for **cement** compns., for preventing laitance formation)

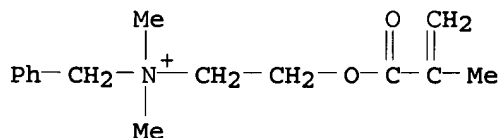
RN 120619-35-4 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with N,N'-methylenebis[2-propenamide] (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl

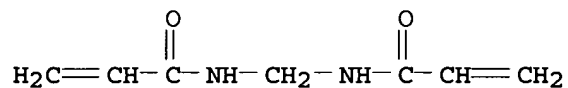


● Cl<sup>-</sup>

CM 2

CRN 110-26-9

CMF C7 H10 N2 O2



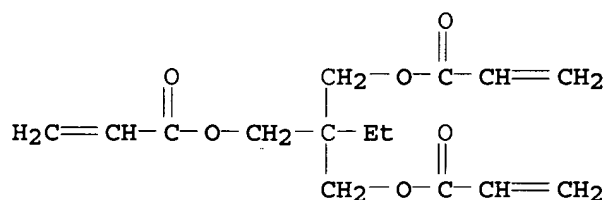
RN 124335-13-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

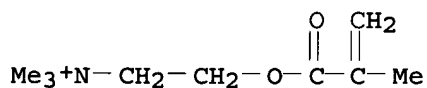
CRN 15625-89-5

CMF C15 H20 O6



CM 2

CRN 5039-78-1

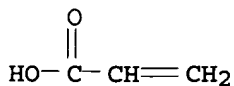
CMF C9 H18 N O2 . Cl

- $\text{Cl}^-$

CM 3

CRN 79-10-7

CMF C3 H4 O2



RN 124335-14-4 HCAPLUS

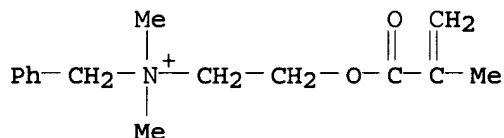
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-ethyl-2-[[[1-oxo-2-

propenyl)oxy)methyl]-1,3-propanediyl di-2-propenoate and 2-propenoic acid  
(9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl

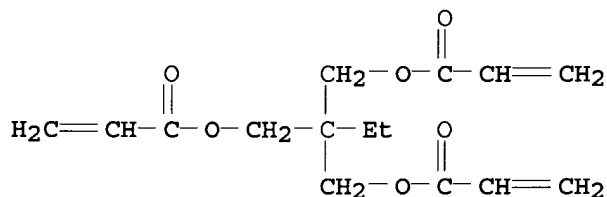


● Cl<sup>-</sup>

CM 2

CRN 15625-89-5

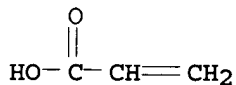
CMF C15 H20 O6



CM 3

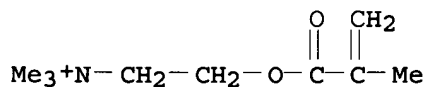
CRN 79-10-7

CMF C3 H4 O2



L51 ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1989:198234 HCAPLUS  
DN 110:198234  
TI Thickening agents for concrete  
IN Fukushima, Reizo; Aoyama, Kiyoshi  
PA Kyoritsu Organic Industrial Research Laboratory, Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63270332	A2	19881108	JP 1987-103138	19870428
	JP 07106935	B4	19951115		
PRAI	JP 1987-103138		19870428		
AB	Water-soluble ethylenically unsatd. monomers mainly comprising acrylamide monomer are polymerized in an aqueous inorg. salt solution in the presence of polymeric electrolyte under precipitation of other polymers to prepare a polymer dispersion, which is used as thickening agent for concrete mixes. Thus, a concrete mix (sand/aggregate ratio 0.4, water/cement ratio 0.55), containing 400 kg cement/m <sup>3</sup> was mixed with 3 kg dispersion of acrylamide-Na acrylate copolymer (viscosity 61 cP)/m <sup>3</sup> , molded in water, and hardened to give a test sample having 7- and 28-day compressive strength 165 and 235 kg/cm <sup>2</sup> , resp. The cement loss in water was 2%, vs. 73% without the thickening agent.				
IC	ICM C04B024-26				
	ICS C08L033-24				
ICA	C08F002-10; C08F020-56				
CC	58-2 (Cement, Concrete, and Related Building Materials)				
ST	acrylamide sodium acrylate copolymer concrete; polymeric thickening agent concrete				
IT	Concrete (thickening agents for, acrylamide-sodium acrylate copolymer dispersions)				
IT	25085-02-3, Acrylamide-sodium acrylate copolymer 35429-19-7, Acrylamide-methacryloyloxyethyltrimethylammonium chloride copolymer 38193-60-1 53845-65-1 69418-26-4 RL: PROC (Process) (aqueous dispersions of, as thickening agents for concrete)				
IT	35429-19-7, Acrylamide-methacryloyloxyethyltrimethylammonium chloride copolymer 69418-26-4 RL: PROC (Process) (aqueous dispersions of, as thickening agents for concrete)				
RN	35429-19-7 HCAPLUS				
CN	Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)				
CM	1				
CRN	5039-78-1				
CMF	C9 H18 N O2 . Cl				



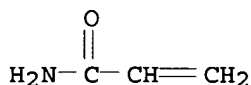
● Cl<sup>-</sup>

CM 2

CRN 79-06-1

CMF C3 H5 N O





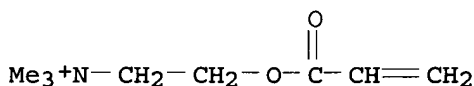
RN 69418-26-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 44992-01-0

CMF C8 H16 N O2 . Cl

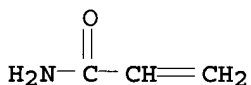


● Cl<sup>-</sup>

CM 2

CRN 79-06-1

CMF C3 H5 N O



L51 ANSWER 39 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:62670 HCAPLUS

DN 110:62670

TI Method of finishing a concrete structure, and an acrylate emulsion adhesive for use in the method

IN Tokumoto, Minoru; Takagi, Motoyuki

PA National Starch and Chemical Corp., USA

SO U.S., 9 pp.

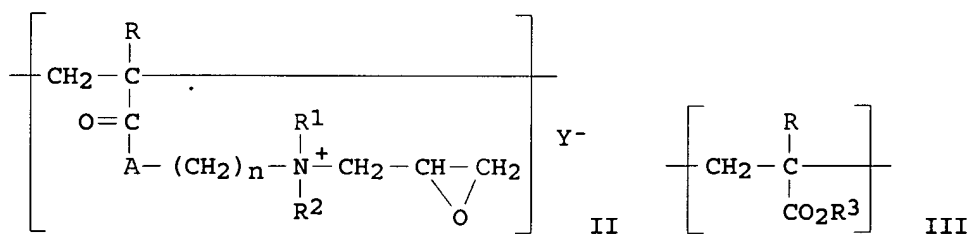
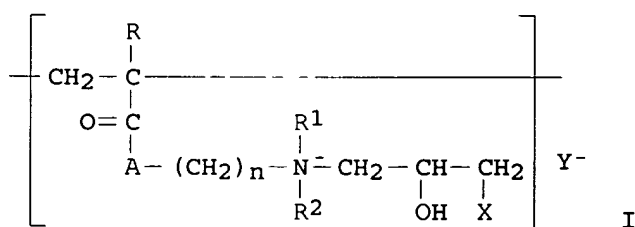
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4746552	A	19880524	US 1987-61843	19870611
	JP 63004883	A2	19880109	JP 1986-151919	19860625
	AU 8774629	A1	19880114	AU 1987-74629	19870623
	AU 579520	B2	19881124		
PRAI	JP 1986-151919	A	19860625		
GI					



AB The title method consists of (a) coating a concrete structure with an aqueous synthetic resin emulsion, (b) drying the emulsion film, and (c) forming a **cement**-based finish layer on top of the film; the synthetic resin is an acrylic ester copolymer containing the repeating units I and/or II, and repeating unit III [R = H, Me; R1-2 = Me, Et; R3 = C1-12 (cyclo)alkyl; A = O, NH; X = Cl, Br, I; Y = (in)organic anion; n = 2, 3]. The emulsion is applied at 10-200 g/m<sup>2</sup> (as solids). A 15% aqueous emulsion of polyoxyethylene nonylphenyl ether copolymer with sulfonated, partially saponified, poly(vinyl alc.) Na salt (preparation given) was applied to the surface of a **mortar** block at 25 g/m<sup>2</sup>. After 2 h air drying, fresh **cement mortar** was applied on top of the adhesive layer and cured in a wet atmosphere at 20° for 1 wk, then in dry air for 3 wk, for tensile strength 17.9 kg/cm<sup>2</sup>, dropping to 16.1 in a described durability test, and to 10.4 kg/cm<sup>2</sup> in a heat-resistance test, all with cohesive failure of the 2nd **mortar** layer. In comparative tests with com. adhesives, the corresponding values were 16.2 (cohesive **mortar** failure), 8.2, and 3.4 kg/cm<sup>2</sup> (the latter 2 with adhesive failure).

IC ICM B05D003-02

INCL 427393600

CC 58-2 (**Cement**, Concrete, and Related Building Materials)

ST acrylate adhesive concrete finishing; facing concrete acrylic emulsion adhesive

IT Acrylic polymers, uses and miscellaneous

RL: USES (Uses)

(adhesives, for applying finishing facings to concrete)

IT Concrete

(finishing of, acrylic emulsion adhesive for application of facings for)

IT Adhesives

(emulsion, acrylic, for applying finishing facings to concrete)

IT 9002-89-5D, Poly(vinyl alcohol), sulfonated, saponified 9016-45-9,

Polyoxyethylene nonylphenyl ether 9016-45-9D, Polyoxyethylene nonylphenyl ether, polymers with sulfonated, saponified poly(vinyl alc.)

25852-37-3, Methyl methacrylate-butyl acrylate copolymer

107601-44-5 107601-45-6

RL: USES (Uses)

(emulsions, adhesives for application of finishing facings to concrete)

IT 107601-44-5 107601-45-6

## RL: USES (Uses)

(emulsions, adhesives for application of finishing facings to concrete)

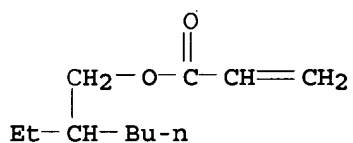
RN 107601-44-5 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-, nitrate (salt), polymer with N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-N-(oxiranylmethyl)-1-propanaminium nitrate, 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 103-11-7

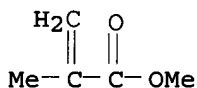
CMF C11 H20 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

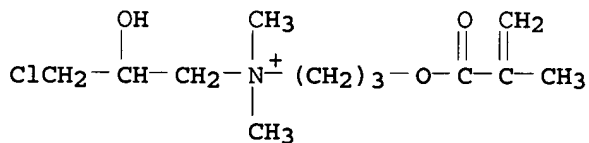
CRN 107601-43-4

CMF C12 H23 Cl N O3 . N O3

CM 4

CRN 107601-41-2

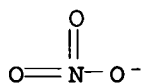
CMF C12 H23 Cl N O3



CM 5

CRN 14797-55-8

CMF N O3



CM 6

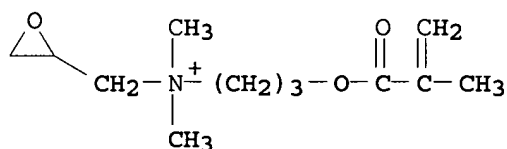
CRN 107601-42-3

CMF C12 H22 N O3 . N O3

CM 7

CRN 107601-40-1

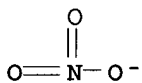
CMF C12 H22 N O3



CM 8

CRN 14797-55-8

CMF N O3



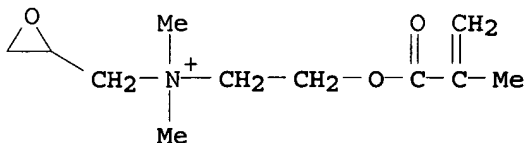
RN 107601-45-6 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate, 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-1-propanaminium chloride and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

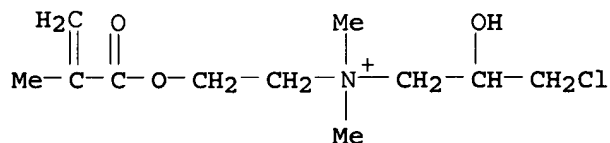
CMF C11 H20 N O3 . Cl

● Cl<sup>-</sup>

CM 2

CRN 58564-96-8

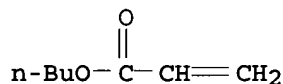
CMF C11 H21 Cl N O3 . Cl

● Cl<sup>-</sup>

CM 3

CRN 141-32-2

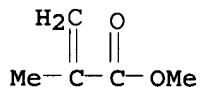
CMF C7 H12 O2



CM 4

CRN 80-62-6

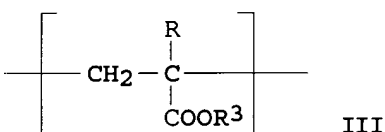
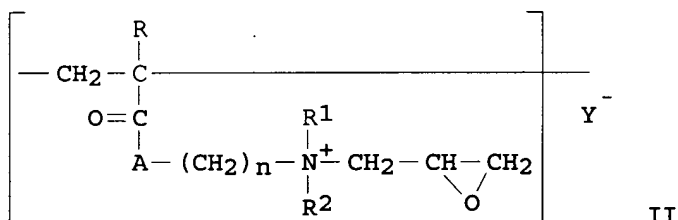
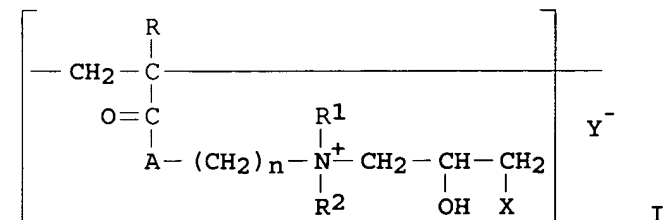
CMF C5 H8 O2



L51 ANSWER 40 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1988:478721 HCAPLUS  
 DN 109:78721  
 TI **Cement** compositions with excellent adhesion, elasticity, and  
 waterproofness  
 IN Tokumoto, Minoru; Takagi, Motoyuki; Shimooka, Shizuo  
 PA Kanebo NSC K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 63008253	A2	19880114	JP 1986-151920	19860625

JP 07061888 B4 19950705  
 PRAI JP 1986-151920 19860625  
 GI



AB The **cement** compns. contain (A) **cement** and (B) aqueous emulsion of acrylic acid system polymer having repeating units I and/or II and repeating unit III [R = H, Me; R1-2 = Me, Et; R3 = C1-12 (cyclo)alkyl; A = -O-, -NH-; X = Cl, Br, I; Y = (in)organic anion, n = 2,3] and having glass transition temperature  $\leq 10^\circ$ . **Cement mortar** containing portland **cement** 100, sand 300, defoaming agent 1, and water 45 parts was mixed with 39.2 parts (20 parts as solids) aqueous emulsion of polymer (prepared from Me methacrylate 32, 2-ethylhexyl acrylate 65, and dimethylaminopropyl methacrylate epichlorohydrin adduct nitrate 3.3 parts) and the **mortar** was coated on glazed tiles and hardened 3 wk at  $20^\circ$ . The bonding strength of the **mortar** coating was 6.8 vs. 3.1 kg/cm<sup>2</sup> when a com. emulsion was used.

IC ICM C04B028-02

ICS C04B024-12; C08L033-04

ICI C04B028-02, C04B024-12

CC 58-3 (**Cement**, Concrete, and Related Building Materials)

ST acrylic polymer **cement** compn

IT **Cement**

(compns., containing acrylic polymers, with improved adhesion and elasticity and waterproofness)

IT 85797-59-7 115532-73-5 115532-74-6

115532-75-7 115532-76-8 115532-79-1

115532-81-5 115557-21-6

RL: TEM (Technical or engineered material use); USES (Uses)

(**cement** compns. containing, with improved adhesion and elasticity and waterproofness)

IT 85797-59-7 115532-73-5 115532-74-6

115532-75-7 115532-76-8 115532-79-1

115532-81-5 115557-21-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(cement comps. containing, with improved adhesion and elasticity  
and waterproofness)

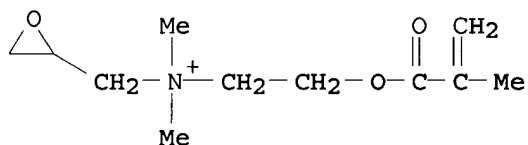
RN 85797-59-7 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

CMF C11 H20 N O3 . Cl

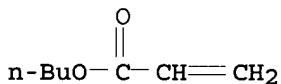


● Cl<sup>-</sup>

CM 2

CRN 141-32-2

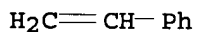
CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



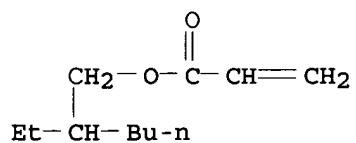
RN 115532-73-5 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-, nitrate, polymer with 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

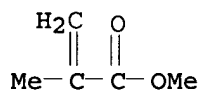
CRN 103-11-7

CMF C11 H20 O2



CM 2

CRN 80-62-6  
CMF C5 H8 O2

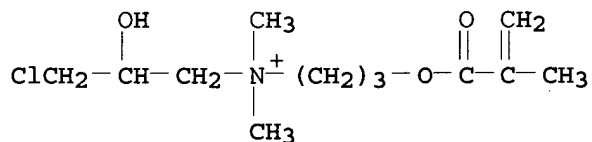


CM 3

CRN 107601-43-4  
CMF C12 H23 Cl N O3 . N O3

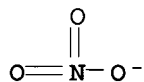
CM 4

CRN 107601-41-2  
CMF C12 H23 Cl N O3



CM 5

CRN 14797-55-8  
CMF N O3

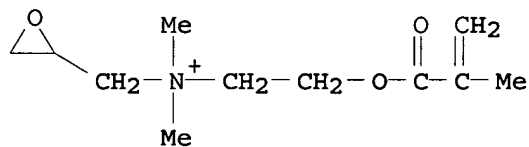


RN 115532-74-6 HCAPLUS  
CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7  
CMF C11 H20 N O3 . Cl



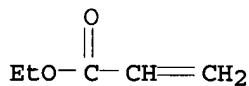


● Cl<sup>-</sup>

CM 2

CRN 140-88-5

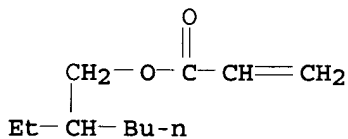
CMF C5 H8 O2



CM 3

CRN 103-11-7

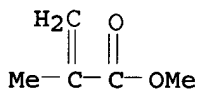
CMF C11 H20 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



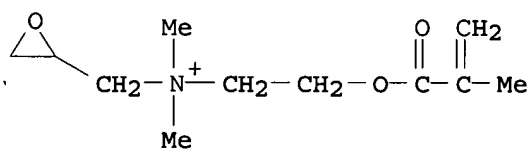
RN 115532-75-7 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-ethylhexyl 2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

CMF C11 H20 N O3 . Cl

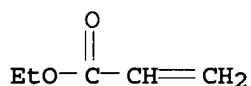


● Cl<sup>-</sup>

CM 2

CRN 140-88-5

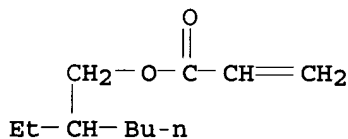
CMF C5 H8 O2



CM 3

CRN 103-11-7

CMF C11 H20 O2



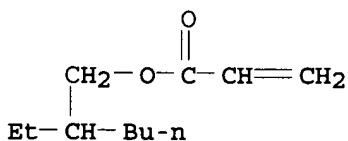
RN 115532-76-8 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, nitrate, polymer with 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

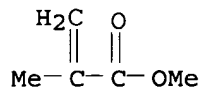
CRN 103-11-7

CMF C11 H20 O2



CM 2

CRN 80-62-6  
CMF C5 H8 O2

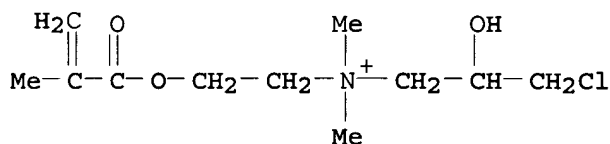


CM 3

CRN 67596-04-7  
CMF C11 H21 Cl N O3 . N O3

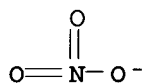
CM 4

CRN 58565-00-7  
CMF C11 H21 Cl N O3



CM 5

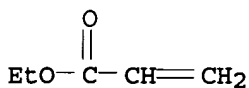
CRN 14797-55-8  
CMF N O3



RN 115532-79-1 HCAPLUS  
CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[3-[(2-methyl-1-oxo-2-propenyl)amino]propyl]-, nitrate, polymer with 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

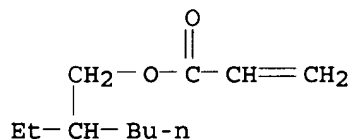
CM 1

CRN 140-88-5  
CMF C5 H8 O2



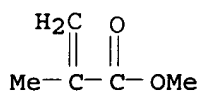
CM 2

CRN 103-11-7  
CMF C11 H20 O2



CM 3

CRN 80-62-6  
CMF C5 H8 O2

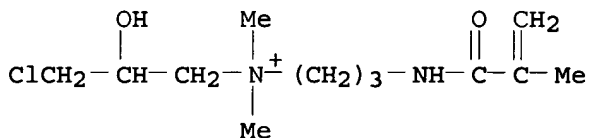


CM 4

CRN 115532-78-0  
CMF C12 H24 Cl N2 O2 . N O3

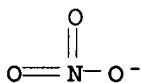
CM 5

CRN 115532-77-9  
CMF C12 H24 Cl N2 O2



CM 6

CRN 14797-55-8  
CMF N O3

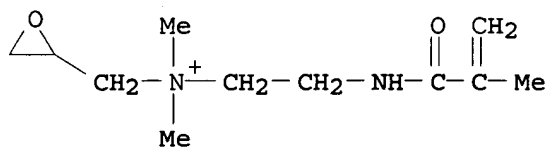


RN 115532-81-5 HCAPLUS  
CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)amino]ethyl]-, chloride, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107632-42-8

CMF C11 H21 N2 O2 . Cl

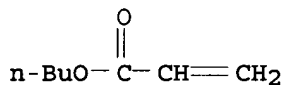


● Cl<sup>-</sup>

CM 2

CRN 141-32-2

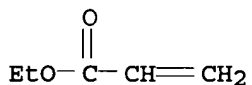
CMF C7 H12 O2



CM 3

CRN 140-88-5

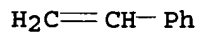
CMF C5 H8 O2



CM 4

CRN 100-42-5

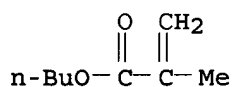
CMF C8 H8



CM 5

CRN 97-88-1

CMF C8 H14 O2



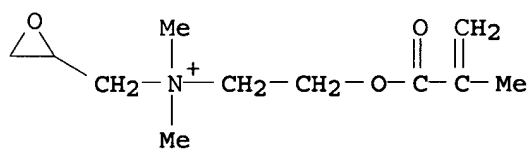
RN 115557-21-6 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

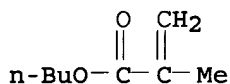
CMF C11 H20 N O3 . Cl

● Cl<sup>-</sup>

CM 2

CRN 97-88-1

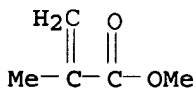
CMF C8 H14 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



L51 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1988:136769 HCAPLUS

DN 108:136769

TI Films from aqueous acrylate copolymer emulsions for improved adhesion of finishing layers on concrete structures

IN Tokumoto, Minoru; Takagi, Motoyuki

PA National Starch and Chemical Corp., USA

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

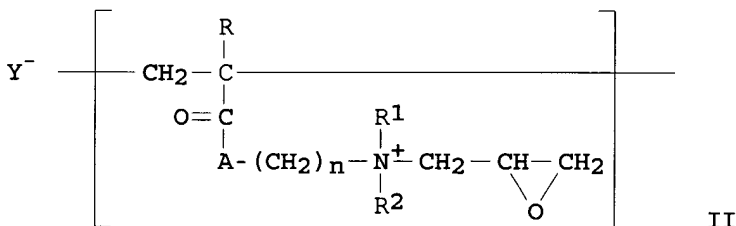
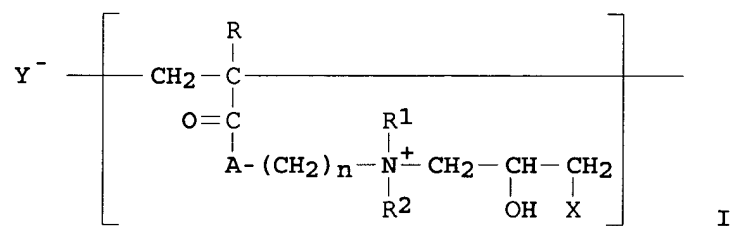
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 251166	A1	19880107	EP 1987-109041	19870624
	EP 251166	B1	19900704		
	R: CH, DE, FR, GB, IT, LI				
	JP 63004883	A2	19880109	JP 1986-151919	19860625
	AU 8774629	A1	19880114	AU 1987-74629	19870623
	AU 579520	B2	19881124		
PRAI	JP 1986-151919	A	19860625		

GI



AB An aqueous emulsion of an acrylic ester copolymer containing  $\geq 1$  repeating unit selected from I and II, and  $-\text{CH}_2\text{C}(\text{R})(\text{COOR}_3)-$  units (where  $\text{R} = \text{H}$  or  $\text{Me}$ ,  $\text{R}_1$  and  $\text{R}_2$  independently =  $\text{Me}$  or  $\text{Et}$ ,  $\text{R}_3 = \text{C}_1\text{-12 alkyl}$  or  $\text{cycloalkyl}$ ,  $\text{A} = -\text{O}-$  or  $-\text{NH}-$ ,  $\text{X} = \text{Cl}$ ,  $\text{Br}$ , or  $\text{I}$ ,  $\text{Y} = \text{organic or inorg. anion}$ , and  $n = 2$  or  $3$ ), having glass transition point ( $\text{Tg}$ ) from  $-10^\circ$  to  $+20^\circ$ , is applied to bare concrete surfaces and substantially dried to form a film which improves the adhesion of a subsequent cement-based finishing layer. The emulsion is applied in a coating weight of .apprx.10-200 g/m<sup>2</sup> (solids basis). An aqueous acrylic ester resin emulsion obtained by emulsion polymerization from an aqueous solution containing polyoxyethylene nonyl Ph ether, sulfonated partially saponified poly(vinyl alc) sodium salt,  $\text{NaH}_2\text{PO}_4$ , and  $(\text{NH}_4)_2\text{S}_2\text{O}_8$  and a monomer mixture containing Me methacrylate, 2-ethylhexyl acrylate, and dimethylaminopropylmethacrylate-epichlorohydrin adduct nitrate, had solids content 51%, viscosity 260 cm/s,  $\text{Tg } 0^\circ$ , and pH 2.4. The emulsion was diluted to 15% solids content, applied at 25 g (solids)/m<sup>2</sup> to a mortar surface, which was water-cured for 1 mo and atmospheric cured for 2 wk, and air-dried at  $20^\circ$  for 2 h. Fresh mortar with the same cement-sand-water ratio (1:2:0.65) was poured in a frame to 1-cm thickness on part of the surface. In atmospheric, durability, and heat resistance tests the tensile adhesive strength was 17.9, 16.1, and 10.4 kg/cm<sup>2</sup>, resp., vs. 16.2, 8.2, and 3.4, resp., with an interlayer from a com. aqueous styrene-2-ethylhexyl acrylate copolymer emulsion.

IC ICM C04B041-63  
ICS C04B041-71; C08F220-36; C08F220-60

CC 58-2 (Cement, Concrete, and Related Building Materials)  
Section cross-reference(s): 38

ST acrylate polymer interlayer film concrete; adhesive polymer interlayer  
mortar finishing

IT Films  
(acrylate copolymers with epichlorohydrin adducts, on concrete, for  
improved adhesion of cement-based finishing layer)

IT Concrete  
Mortar  
(films of acrylate copolymers with epichlorohydrin adducts on, for  
improved adhesion of cement-based finishing layer)

IT 25852-37-3 30261-69-9 30705-21-6 80044-52-6 113315-40-5  
113315-42-7 113315-43-8 113315-46-1  
113315-48-3 113315-50-7 113328-68-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(film, from aqueous emulsion, on concrete, for improved adhesion of  
cement-based finishing layer)

IT 113315-40-5 113315-42-7 113315-46-1  
113315-48-3 113315-50-7 113328-68-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(film, from aqueous emulsion, on concrete, for improved adhesion of  
cement-based finishing layer)

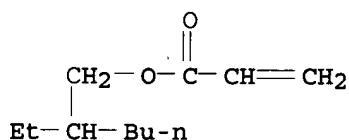
RN 113315-40-5 HCAPLUS

CN 1-Propanaminium, N-(2-chloro-1-hydroxyethyl)-N,N-dimethyl-3-[(2-methyl-1-  
oxo-2-propenyl)oxyl]-, nitrate, polymer with 2-ethylhexyl 2-propenoate and  
methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 103-11-7

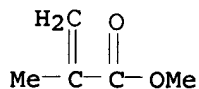
CMF C11 H20 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

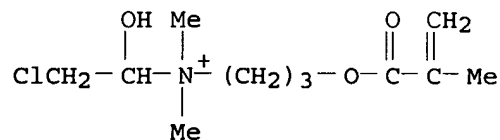
CRN 113351-71-6

CMF C11 H21 Cl N O3 . N O3



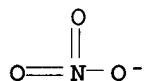
CM 4

CRN 113315-39-2  
CMF C11 H21 Cl N O3



CM 5

CRN 14797-55-8  
CMF N O3

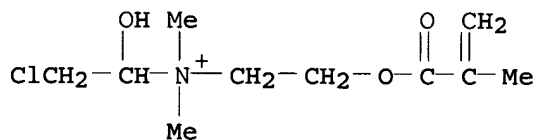


RN 113315-42-7 HCAPLUS

CN Ethanaminium, 2-chloro-1-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

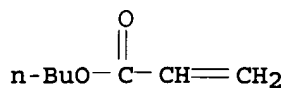
CM 1

CRN 113315-41-6  
CMF C10 H19 Cl N O3 . Cl



CM 2

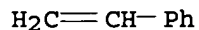
CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



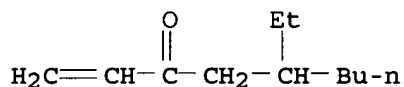
RN 113315-46-1 HCAPLUS

CN Ethanaminium, 2-chloro-1-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, nitrate, polymer with 5-ethyl-1-nonen-3-one and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 45016-65-7

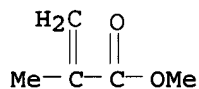
CMF C11 H20 O



CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

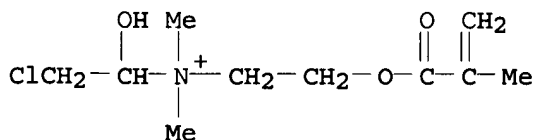
CRN 113315-45-0

CMF C10 H19 Cl N O3 . N O3

CM 4

CRN 113315-44-9

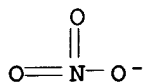
CMF C10 H19 Cl N O3



CM 5

CRN 14797-55-8

CMF N O3



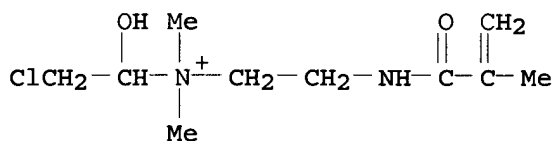
RN 113315-48-3 HCAPLUS

CN Ethanaminium, 2-chloro-1-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)amino]ethyl]-, chloride, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 113315-47-2

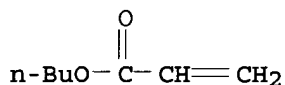
CMF C10 H20 Cl N2 O2 . Cl



CM 2

CRN 141-32-2

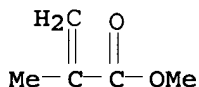
CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



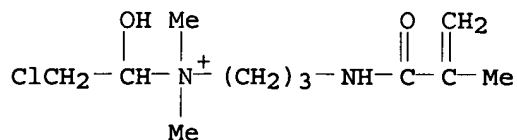
RN 113315-50-7 HCAPLUS

CN 1-Propanaminium, N-(2-chloro-1-hydroxyethyl)-N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 113315-49-4

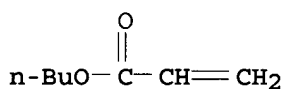
CMF C11 H22 Cl N2 O2 . Cl



CM 2

CRN 141-32-2

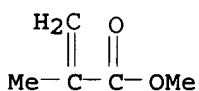
CMF C7 H12 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



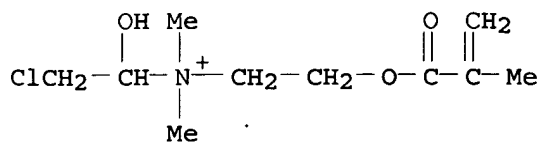
RN 113328-68-0 HCAPLUS

CN Ethanaminium, 2-chloro-1-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

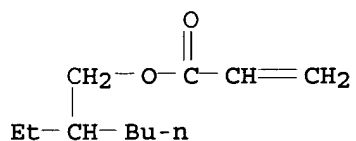
CRN 113315-41-6

CMF C10 H19 Cl N O3 . Cl

● Cl<sup>-</sup>

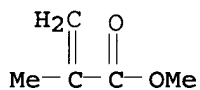
CM 2

CRN 103-11-7  
CMF C11 H20 O2



CM 3

CRN 80-62-6  
CMF C5 H8 O2



L51 ANSWER 42 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:143030 HCAPLUS

DN 106:143030

TI **Cement** compositions with improved adhesiveness, elasticity, and waterproofness

IN Tokumoto, Minoru; Takagi, Motoyuki; Shimooka, Shizuo

PA Kanebo NSC K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

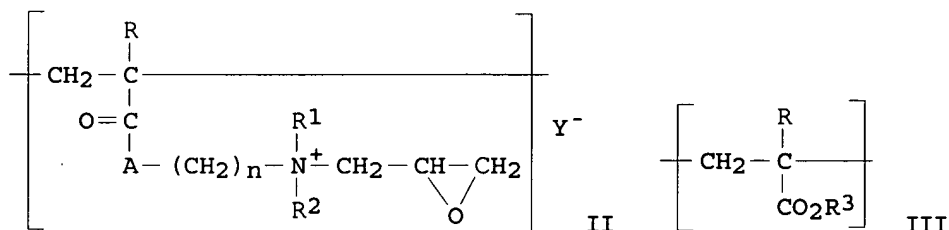
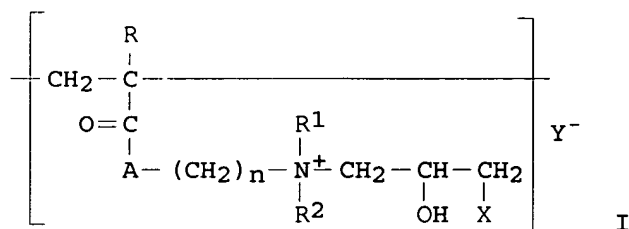
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 61158851	A2	19860718	JP 1984-281833	19841228
PRAI	JP 1984-281833		19841228		
GI					



AB The title **cement** compns. contain **cement** and aqueous emulsion of an acrylic acid system resin containing I and/or II and III (R = H or Me, R<sup>1</sup>, R<sup>2</sup> = Me or Et, R<sup>3</sup> = C1-12 alkyl or cycloalkyl, A = -O- or -NH-, X = Cl, Br, or I, Y = organic or inorg. anion, n = 2 or 3), having glass transition temperature ≤10°. Thus, an aqueous emulsion of acrylate resin having glass transition temperature 14° was prepared from Me methacrylate 32, 2-ethylhexyl acrylate 65, and dimethylaminopropyl methacrylate-epichlorohydrin adduct nitrate 3.3 parts. A **cement mortar** containing **cement** 100, sand 300, the emulsion 39.2, a defoaming agent 1, and water 45 parts was coated on semi-porcelain tiles, and cured at 20° for 3 wk. The bonding strength of the **mortar** layer was 6.8 kg/cm<sup>2</sup>, vs. 3.1 for a **mortar** containing a conventional acrylic ester copolymer emulsion.

IC ICM C04B024-26

ICA C08F220-12

CC 58-1 (**Cement**, Concrete, and Related Building Materials)

ST acrylate copolymer emulsion **cement** coating

IT Coating materials

(**cement mortar**, containing acrylate copolymer emulsion, for improved adhesiveness and elasticity)

IT **Cement**

(coating compns. containing, with acrylate copolymer emulsion with improved adhesiveness and elasticity and waterproofing)

IT 107601-44-5 107601-45-6 107601-46-7

107601-47-8 107601-49-0 107632-44-0

107764-40-9

RL: TEM (Technical or engineered material use); USES (Uses)

(emulsion, **mortar** containing, for coating on building materials with improved adhesiveness)

IT 107601-44-5 107601-45-6 107601-46-7

107601-47-8 107601-49-0 107632-44-0

107764-40-9

RL: TEM (Technical or engineered material use); USES (Uses)

(emulsion, **mortar** containing, for coating on building materials with improved adhesiveness)

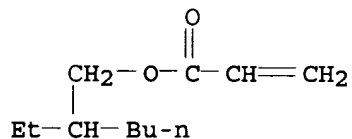
RN 107601-44-5 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-, nitrate (salt), polymer with N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-N-(oxiranylmethyl)-1-propanaminium nitrate,

2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

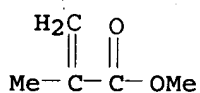
CM 1

CRN 103-11-7  
CMF C11 H20 O2



CM 2

CRN 80-62-6  
CMF C5 H8 O2

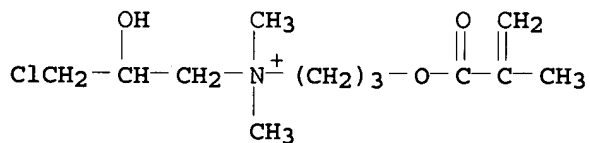


CM 3

CRN 107601-43-4  
CMF C12 H23 Cl N O3 . N O3

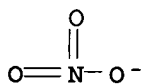
CM 4

CRN 107601-41-2  
CMF C12 H23 Cl N O3



CM 5

CRN 14797-55-8  
CMF N O3



CM 6

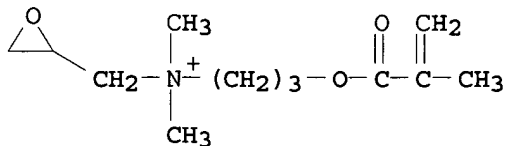
CRN 107601-42-3

CMF C12 H22 N O3 . N O3

CM 7

CRN 107601-40-1

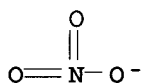
CMF C12 H22 N O3



CM 8

CRN 14797-55-8

CMF N O3



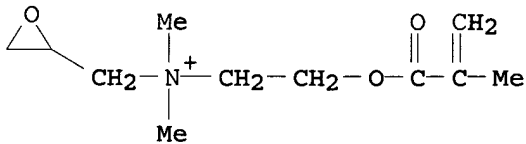
RN 107601-45-6 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate, 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-1-propanaminium chloride and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

CMF C11 H20 N O3 . Cl

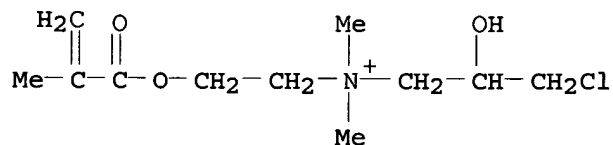


CM 2

CRN 58564-96-8

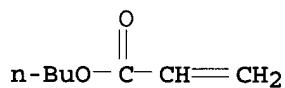
CMF C11 H21 Cl N O3 . Cl





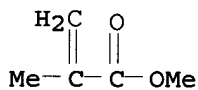
CM 3

CRN 141-32-2  
CMF C7 H12 O2



CM 4

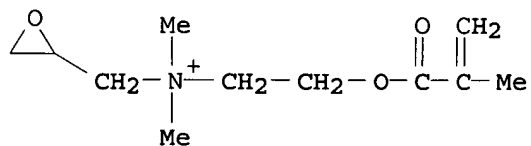
CRN 80-62-6  
CMF C5 H8 O2



RN 107601-46-7 HCAPLUS  
CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-1-propanaminium chloride, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7  
CMF C11 H20 N O3 . Cl

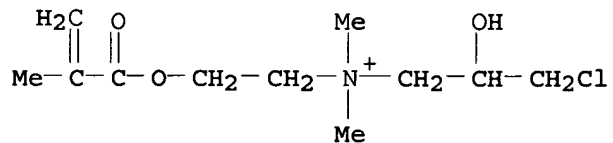


- $\text{Cl}^-$

CM 2

CRN 58564-96-8

CMF C11 H21 Cl N O3 . Cl

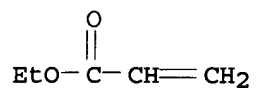


●  $\text{Cl}^-$

CM 3

CRN 140-88-5

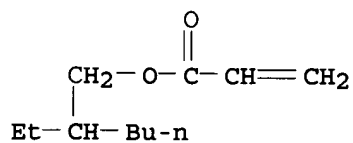
CMF C5 H8 O2



CM 4

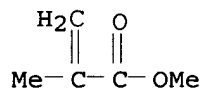
CRN 103-11-7

CMF C11 H20 O2



CM 5

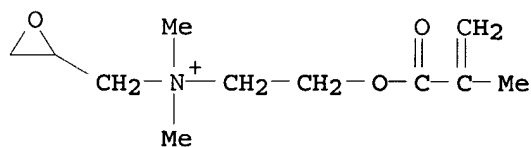
CRN 80-62-6  
CMF C5 H8 O2



RN 107601-47-8 HCAPLUS  
CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate, 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-1-propanaminium chloride and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

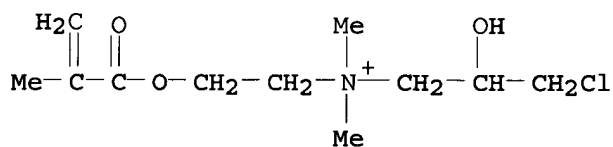
CRN 62351-05-7  
CMF C11 H20 N O3 . Cl



● Cl<sup>-</sup>

CM 2

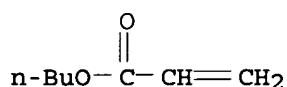
CRN 58564-96-8  
CMF C11 H21 Cl N O3 . Cl



● Cl<sup>-</sup>

CM 3

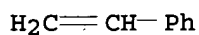
CRN 141-32-2  
CMF C7 H12 O2



CM 4

CRN 100-42-5

CMF C8 H8



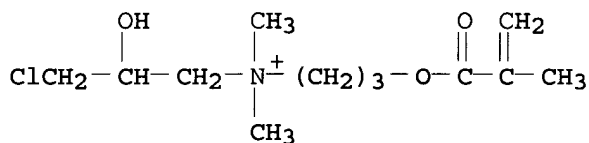
RN 107601-49-0 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-, chloride, polymer with N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-N-(oxiranylmethyl)-1-propanaminium nitrate, ethenylbenzene, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107601-48-9

CMF C12 H23 Cl N O3 . Cl

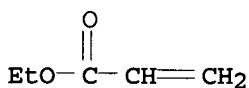


● Cl<sup>-</sup>

CM 2

CRN 140-88-5

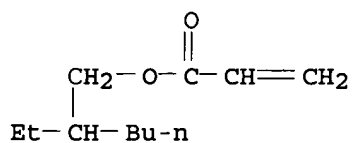
CMF C5 H8 O2



CM 3

CRN 103-11-7

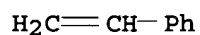
CMF C11 H20 O2



CM 4

CRN 100-42-5

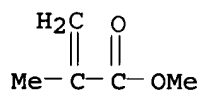
CMF C8 H8



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

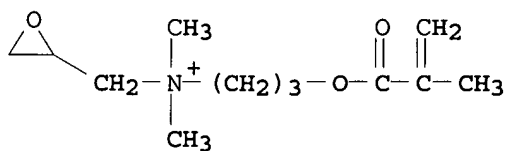
CRN 107601-42-3

CMF C12 H22 N O3 . N O3

CM 7

CRN 107601-40-1

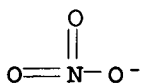
CMF C12 H22 N O3



CM 8

CRN 14797-55-8

CMF N O3



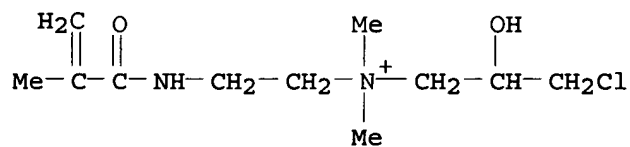
RN 107632-44-0 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)amino]ethyl]-, chloride, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)amino]ethyl]oxiranemethanaminium chloride and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107632-43-9

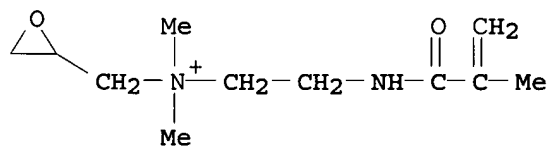
CMF C11 H22 Cl N2 O2 . Cl

● Cl<sup>-</sup>

CM 2

CRN 107632-42-8

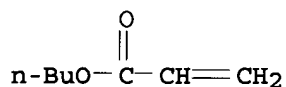
CMF C11 H21 N2 O2 . Cl

● Cl<sup>-</sup>

CM 3

CRN 141-32-2

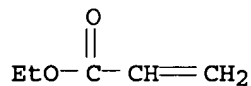
CMF C7 H12 O2



CM 4

CRN 140-88-5

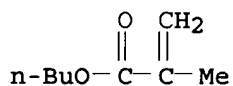
CMF C5 H8 O2



CM 5

CRN 97-88-1

CMF C8 H14 O2



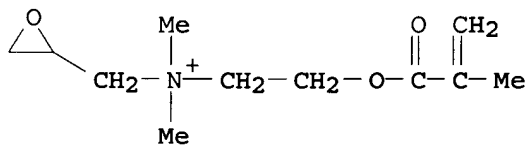
RN 107764-40-9 HCAPLUS

CN Oxiranemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 3-chloro-2-hydroxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-1-propanaminium chloride, 2-ethylhexyl 2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 62351-05-7

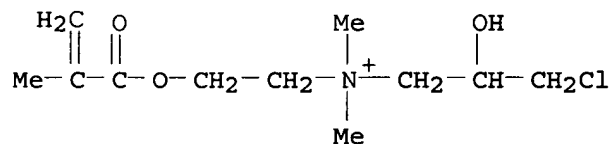
CMF C11 H20 N O3 . Cl

● Cl<sup>-</sup>

CM 2

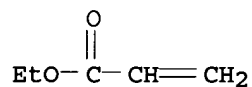
CRN 58564-96-8

CMF C11 H21 Cl N O3 . Cl



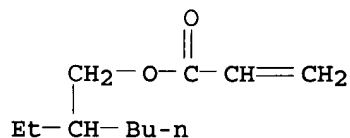
CM 3

CRN 140-88-5  
CMF C5 H8 O2



CM 4

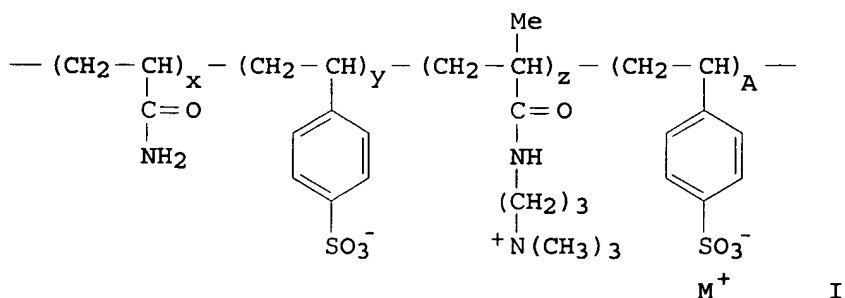
CRN 103-11-7  
CMF C11 H20 O2



L51 ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1987:107052 HCAPLUS  
DN 106:107052  
TI Fluid loss control in oil field **cements**  
IN Peiffer, Dennis G.; Lundberg, Robert D.; Sedillo, Lawrence; Newlove, John C.  
PA Exxon Research and Engineering Co., USA  
SO U.S., 5 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 4626285	A	19861202	US 1984-651897	19840919
	US 4683952	A	19870804	US 1986-903450	19860904
PRAI	US 1984-651897	A3	19840919		
GI					





AB A **cement** fluid loss control agent is an aqueous slurry containing .apprx.35 to .simeq.90 weight% water (based on dry **cement**) and .apprx.0.1 to .simeq.2 weight% of polyampholyte terpolymer I (where x .simeq.40 to .simeq.98, y = z .simeq.1 to .simeq.50, A .simeq.1 to .simeq.50, A + y + z < 60 mol.%, and M is an amine or a metallic cation selected from Pb, Fe, Al, Group IA, IIA, IVA, VIA, VIIA, VIIIA, IB, and IIB, especially Na. The terpolymer may contain nonstoichiometric amts. of anionic groups. Thus, a terpolymer was prepared from 50% aqueous solution of methacrylamidopropyltrimethylammonium chloride 12.08, Na styrenesulfonate 5.64, and acrylamide 35.0 g with 300 mL distilled water. The terpolymer had 1.8 mol.% excess non-polymerizable free charge attached to some styrenesulfonate units. When the polymer was used to control fluid loss in **cement** slurries, fluid loss after 30 min. was 30 mL vs. 84 mL for an acrylamide-acrylic acid copolymer.

IC C04B007-35

INCL 106090000

CC 58-1 (**Cement**, Concrete, and Related Building Materials)

Section cross-reference(s): 51

ST acrylamide terpolymer fluid loss control **cement**; polyampholyte fluid loss control **cement**; styrenesulfonate terpolymer fluid loss control **cement**; methacrylamidopropyl trimethylammonium terpolymer acrylamide naphthalenesulfonate; petroleum well **cement** fluid retention

IT Petroleum wells

(**cements** for, terpolymeric fluid loss control agents for)

IT **Cement**

(terpolymeric fluid loss control agents for, for petroleum wells)

IT 107162-96-9

RL: USES (Uses)

(fluid loss control agent, for petroleum well **cements**)

IT 107162-96-9

RL: USES (Uses)

(fluid loss control agent, for petroleum well **cements**)

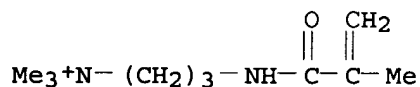
RN 107162-96-9 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with 2-propenamide and sodium 4-ethenylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 51410-72-1

CMF C10 H21 N2 O . Cl

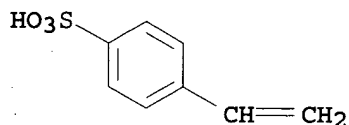


● Cl<sup>-</sup>

CM 2

CRN 2695-37-6

CMF C8 H8 O3 S . Na

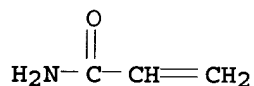


● Na

CM 3

CRN 79-06-1

CMF C3 H5 N O



L51 ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1986:9803 HCAPLUS

DN 104:9803

TI Chemical admixtures for underwater concrete

IN Takemoto, Takao; Miyazawa, Takeshi

PA Toa Gosei Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

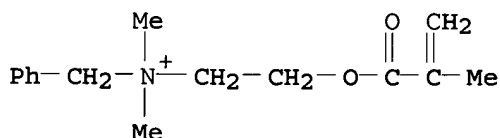
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60155559	A2	19850815	JP 1984-10292	19840125
	JP 03023497	B4	19910329		
PRAI	JP 1984-10292		19840125		

AB The chemical admixts. are composed of poly(ethylene oxide) [25322-68-3] and/or polyacrylamide [9003-05-8] and a cationic water-soluble resin. The

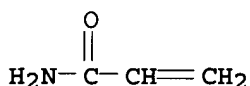
chemical admixts. can be used in concrete in seawater and at the bottom of rivers, without disintegration of the concrete, and impart strength to the concrete. Thus, acrylamide 20, benzyldimethylaminoethyl methacrylate hydrochloride 80, ion-exchanged water 100, 2,2'-azobisisobutyronitrile 0.1, and NaHSO<sub>3</sub> 0.1 part were mixed at 20°, allowed to react, dried, and ground to give a cationic water-soluble resin powder (average mol. weight 250,000). The resin 0.25, and poly(ethylene oxide) (weight average mol. weight 160,000) 0.25 were dissolved in water 99.5 parts, and a mortar paste was prepared by mixing cement and sand with the aqueous solution. When the mortar paste was placed in water, very clear water was found on the top of the mortar, and the mortar compressive strength was 315-328 kg/cm<sup>2</sup> (JIS R 5201).

IC ICM C04B024-24  
 CC 58-2 (Cement, Concrete, and Related Building Materials)  
 Section cross-reference(s): 38  
 ST chem admixt underwater concrete; polyethylene oxide compn concrete;  
 polyacrylamide compn concrete  
 IT Concrete  
 (polymer mixture additive for, for underwater use)  
 IT 9003-05-8 25154-86-3 25322-68-3 30619-16-0 51290-10-9  
 RL: USES (Uses)  
 (concrete additive containing, for underwater use)  
 IT 51290-10-9  
 RL: USES (Uses)  
 (concrete additive containing, for underwater use)  
 RN 51290-10-9 HCAPLUS  
 CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 46917-07-1  
 CMF C15 H22 N O2 . Cl



● Cl<sup>-</sup>

CM 2  
 CRN 79-06-1  
 CMF C3 H5 N O



L51 ANSWER 45 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1985:118539 HCAPLUS

DN 102:118539

TI **Cement** additives

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59184754	A2	19841020	JP 1983-60442	19830405
	JP 03027503	B4	19910416		
PRAI	JP 1983-60442		19830405		

AB The title additive consists of modified poly(vinyl alc.) having silyl in its mol. The addition of the agent gives **cement** compns. having high mech. strength and abrasion resistance. Thus, vinyl acetate-vinyltrimethoxysilane copolymer was saponified to give modified poly(vinyl alc.). The modified poly(vinyl alc.) was mixed with portland **cement**, sand, and H<sub>2</sub>O, kneaded, formed, and cured to give a body having bending strength 90, compressive strength 150, and adhesion 20.5 kg/cm<sup>2</sup> (JIS-R5201) compared to 30, 36, and 6.0 kg/cm<sup>2</sup>, resp., for a body prepared with poly(vinyl alc.).

IC C04B013-24

CC 58-1 (**Cement**, Concrete, and Related Building Materials)ST modified polyvinyl alc **cement** additive; silyl polyvinyl alc **cement** additiveIT **Cement**

(silyl-terminated poly(vinyl alc.) in, for increased abrasion resistance and mech. strength)

IT 4420-74-0D, reaction product with poly(vinyl acetate), saponified 9003-20-7D, silyl-terminated, saponified 30850-72-7D, saponified 86368-72-1D, saponified 95039-17-1D, saponified

RL: USES (Uses)

(in **cement**, for increased mech. strength and abrasion resistance)

IT 95039-17-1D, saponified

RL: USES (Uses)

(in **cement**, for increased mech. strength and abrasion resistance)

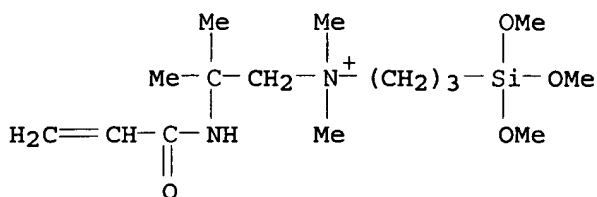
RN 95039-17-1 HCAPLUS

CN 1-Propanaminium, N,N,2-trimethyl-2-[(1-oxo-2-propenyl)amino]-N-[3-(trimethoxysilyl)propyl]-, chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 95039-16-0

CMF C15 H33 N2 O4 Si . Cl



● Cl<sup>-</sup>

CM 2

CRN 108-05-4

CMF C4 H6 O2

AcO-CH=CH<sub>2</sub>

L51 ANSWER 46 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1984:144072 HCAPLUS

DN 100:144072

TI Reinforced **cement** sheet product containing no asbestos for fabricating on a Hatschek machine

IN Johnson, Robert M.; Melling, Elmer M.

PA National Gypsum Co., USA

SO U.S., 12 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4428775	A	19840131	US 1981-233663	19810211
	CA 1177496	A1	19841106	CA 1982-395125	19820128
	US 4543159	A	19850924	US 1984-578557	19840209
PRAI	US 1981-233663	A	19810211		
	US 1982-401870	A3	19820726		

AB Asbestos-free **cement** compns. which can be formed to sheets on a Hatschek machine consist of portland **cement** 40-80, natural or synthetic fibers 1-15, clay 2-15, poly(ethylene oxide) [25322-68-3] 0.03-0.5, and optionally SiO<sub>2</sub> and/or fillers 10-40 weight%. Thus, mats 0.25-0.30 in. thick were prepared from portland **cement** 57.45, 120 mesh SiO<sub>2</sub> 31.92, cotton fibers 5.11, polypropene fibers 0.63, X2059 clay 4.79, Polyox WSR-301 0.10, and Reten 420 [26006-22-4] 0.01 weight%, stacked, stored 7 days, and autoclaved .apprx.20 h at .apprx.110 psig and .apprx.335°F. The modulus of rupture and deflection before rupture across the machine direction were 2720-3246 psi and 0.143 in. and with the machine direction 2125-2547 psi and 0.133 in., resp., and the sheets have d. 90 lb/ft<sup>3</sup>, water absorption 29%, and shrinkage 0.018 in./ft.

IC C04B007-35

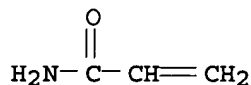
INCL 106090000

CC 58-4 (**Cement**, Concrete, and Related Building Materials)

ST fiber cement building sheet  
IT Cannabis  
(fibers, in building sheets from cement and silica)  
IT Cotton  
Jute  
Pulp, cellulose  
Ramie fibers  
Carbon fibers  
Glass fibers, uses and miscellaneous  
Polyester fibers, uses and miscellaneous  
Polypropene fibers, uses and miscellaneous  
Sisal  
Vinal fibers  
RL: USES (Uses)  
(in building sheets, containing cement and silica, for reinforcement)  
IT Clays, uses and miscellaneous  
RL: USES (Uses)  
(in building sheets, from cement and silica with fiber reinforcement)  
IT Synthetic fibers  
RL: USES (Uses)  
(aluminum oxide, in building sheets from cement and silica)  
IT Polyamide fibers, uses and miscellaneous  
RL: USES (Uses)  
(aramid, in building sheets, containing cement and silica, for reinforcement)  
IT Cement  
(portland, building sheets, containing silica and fillers and natural and synthetic fiber reinforcements)  
IT Building materials  
(sheets, from cement, with silica and fillers and natural and synthetic fiber reinforcement)  
IT 7631-86-9, uses and miscellaneous  
RL: USES (Uses)  
(building sheets from cement and, with fiber reinforcement)  
IT 1344-28-1, uses and miscellaneous  
RL: USES (Uses)  
(fibers, in building sheets from cement and silica)  
IT 26006-22-4  
RL: USES (Uses)  
(flocculating agent, in cement building sheets containing silica and natural and synthetic fiber reinforcement)  
IT 13983-17-0  
RL: USES (Uses)  
(in building sheets, from cement and silica with fiber reinforcement)  
IT 25322-68-3  
RL: USES (Uses)  
(in building sheets, from cement with silica and natural and synthetic fiber reinforcement)  
IT 26006-22-4  
RL: USES (Uses)  
(flocculating agent, in cement building sheets containing silica and natural and synthetic fiber reinforcement)  
RN 26006-22-4 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1  
CMF C3 H5 N O

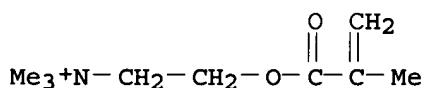


CM 2

CRN 6891-44-7  
CMF C9 H18 N O2 . C H3 O4 S

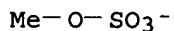
CM 3

CRN 33611-56-2  
CMF C9 H18 N O2



CM 4

CRN 21228-90-0  
CMF C H3 O4 S



L51 ANSWER 47 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1983:220964 HCAPLUS

DN 98:220964

TI Reinforced **cement** sheet product containing wollastonite for reduced shrinkage

IN Johnson, Robert M.; Melling, Elmer M.

PA National Gypsum Co., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4377415	A	19830322	US 1981-233664	19810211
	CA 1185275	A1	19850409	CA 1982-395101	19820128
PRAI	US 1981-233664	A	19810211		

AB Reinforced **cement** building sheets with low drying shrinkage are prepared from portland **cement** 40-90, wollastonite 10-60, SiO<sub>2</sub> 5-30, and polymeric, mineral, or plant fibers 1-15 weight%. Thus, building sheets prepared from Type 1 **cement** 69.57, an acicular wollastonite (with aspect ratio 15-20:1) 25.30, vinal fibers (Kuralon VF 5501) 2.53,

clay 2.53, Polyox WRS-301 [25322-68-3] 0.06, and Reten 420 (acrylamide- $\beta$ -methacryloxyethyltrimethylammonium Me sulfate) [26006-22-4] 0.01 weight %, after normal curing, had d. 94.4 lb/ft<sup>3</sup>, shrinkage, 0.024 in/ft, absorption 25.7%, deflection 0.106 in., and rupture modulus 4128 psi.

IC C04B007-02

INCL 106090000

CC 58-4 (Cement, Concrete, and Related Building Materials)

ST wollastonite fiber cement sheet

IT Cotton

Vinal fibers

RL: USES (Uses)

(building sheets, containing cement and wollastonite)

IT Cement

(building sheets, containing wollastonite and fibers and silica)

IT Building materials

(sheets, from cement with wollastonite and fibers and silica)

IT 13983-17-0

RL: USES (Uses)

(building sheets, cement, containing fibers and silica)

IT 25322-68-3 26006-22-4

RL: USES (Uses)

(building sheets, cement, containing wollastonite and fibers)

IT 7631-86-9, uses and miscellaneous

RL: USES (Uses)

(building sheets, containing cement and wollastonite)

IT 26006-22-4

RL: USES (Uses)

(building sheets, cement, containing wollastonite and fibers)

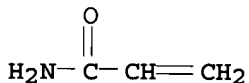
RN 26006-22-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1

CMF C3 H5 N O



CM 2

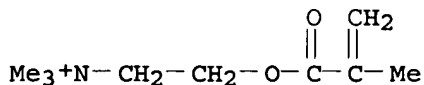
CRN 6891-44-7

CMF C9 H18 N O2 . C H3 O4 S

CM 3

CRN 33611-56-2

CMF C9 H18 N O2





CM 4

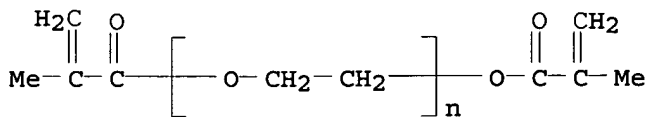
CRN 21228-90-0  
CMF C H3 O4 SMe-O-SO<sub>3</sub><sup>-</sup>

L51 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1982:73759 HCAPLUS  
DN 96:73759  
TI Grouting-soil conditioning systems using polyoxyethylene  
diacrylates  
IN Slovinsky, Manuel  
PA Nalco Chemical Co. , USA  
SO U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 13,105, abandoned.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4295762	A	19811020	US 1980-188185	19800918
PRAI	US 1979-13105	A2	19790221		
AB	Polyethylene glycol dimethacrylate (I) polymers with meth(acrylates), acrylamide, and Ca acrylate (II) are used to congeal and solidify soils. Thus, I 95 and II 5 parts, with water to make up to 50 g, were mixed to a homogeneous solution, mixed with 0.3 triethanolamine and 0.75 cm <sup>3</sup> 40% (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> , and used to stabilize 225 g wet sand. The weight increased 0.4% after 24 and 48 h and 0.5% after 72 h. Penetrometer readings during this time were 33-49, well below the 280 value which is considered satisfactory.				
IC	C09K017-00				
INCL	405264000				
CC	58-5 (Cement, Concrete, and Related Building Materials)				
ST	polyethylene glycol methacrylate copolymer soil stabilization				
IT	Soil stabilization (with polyethylene glycol dimethacrylate copolymers with acrylates and acrylamide and methacrylate)				
IT	53610-01-8	80501-27-5	80501-28-6	80501-29-7	80501-30-0
	80501-31-1	80501-32-2	80501-33-3		
	RL: USES (Uses) (soil stabilization with)				
IT	80501-33-3 RL: USES (Uses) (soil stabilization with)				
RN	80501-33-3 HCAPLUS				
CN	Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo- 2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)				

CM 1

CRN 25852-47-5  
CMF (C2 H4 O)<sub>n</sub> C8 H10 O3  
CCI PMS



CM 2

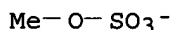
CRN 13106-44-0

CMF C8 H16 N O2 . C H3 O4 S

CM 3

CRN 21228-90-0

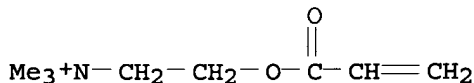
CMF C H3 O4 S



CM 4

CRN 20284-80-4

CMF C8 H16 N O2



L51 ANSWER 49 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1976:126020 HCAPLUS

DN 84:126020

TI Low fluid loss **cementing** compositions

IN Guilbault, Lawrence J.; Hoffstadt, Frederick A.

PA Calgon Corp., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3931096	A	19760106	US 1974-519155	19741030
	US 3943996	A	19760316	US 1975-590974	19750627
PRAI	US 1974-519155	A3	19741030		

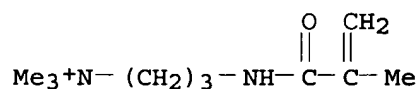
AB The composition consists of dry hydraulic **cement** 98 (maximum) and a H2O-soluble polymer of methacrylamidopropyltrimethylammonium chloride (I) or a copolymer of I and acrylamide [58627-30-8] 0.05-5%, based on weight of **cement**. The fluid slurry (25-60% H2O) is used for **cementing** wells penetrating subterranean formations.

IC C08K

INCL 260042130

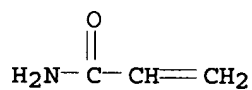
CC 58-2 (Cement and Concrete Products)

ST cement acrylic polymer water retention  
 IT Cement  
 (acrylic polymers in, for water retention)  
 IT 58627-30-8  
 RL: USES (Uses)  
 (in cement, for water retention)  
 IT 58627-30-8  
 RL: USES (Uses)  
 (in cement, for water retention)  
 RN 58627-30-8 HCAPLUS  
 CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-,  
 chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 51410-72-1  
 CMF C10 H21 N2 O . Cl



● Cl<sup>-</sup>

CM 2  
 CRN 79-06-1  
 CMF C3 H5 N O



=>